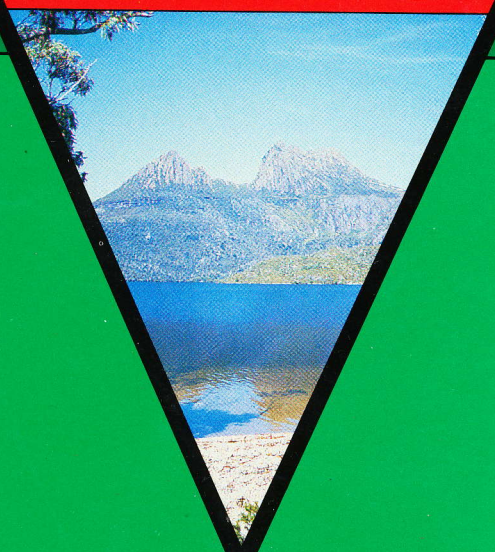
1988



TASMANIAN YEAR BOOK

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Australian Bureau of Statistics
TASMANIAN OFFICE

TASMANIAN YEAR BOOK

No. 21: 1988

STUART JACKSON
DEPUTY COMMONWEALTH STATISTICIAN
AND GOVERNMENT STATISTICIAN OF TASMANIA



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GENERAL INFORMATION

SYMBOLS

The following symbols, where used, mean:

ASIC	Australian Standard Industrial Classification
n.a.	not available
n.e.c.	not elsewhere classified
n.e.i.	not elsewhere included
n.p.	not available for separate publication but included in totals where applicable
n.y.a.	not yet available
p	preliminary — figure or series subject to revision
r	figure or series revised since previous issue
..	not applicable
—	nil or rounded to zero
——	break in continuity of the series (where drawn across a column between two consecutive figures)
(H)	located in Hobart Statistical Division
(S)	located in Southern Statistical Division
(H) (S)	parts in both Divisions.

Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

Where reference is made to Acts of the Commonwealth or State Parliaments, the year quoted refers to the year in which the principal Act was passed; all subsequent amendments are inferred.

VALUES AND MEASURES

Values are shown in Australian dollars ($) and/or cents (¢). Metric units have been substituted for imperial units. The use of dollar currency and metric units has not been confined merely to tables; for the sake of uniformity, they have also been introduced into historical texts.

LOCAL NAMES OF CERTAIN REGIONS

Tasmanians describe certain regions in a manner confusing to strangers; nevertheless this book employs local usage in most contexts. The chief peculiarities are:

North-West Coast: The *north* coast from approximately Port Sorell, west to Cape Grim is called the *North-West Coast*.

North-East Coast: The *north* coast from approximately Low Head, east to Cape Portland is called the *North-East Coast*. With most of the north coast referred to as either 'north-west' or 'north-east' the term 'north' is rarely applied to this coastal region.

West Coast: The Tasmanian *West Coast* may also refer only to the mining settlements of Queenstown, Rosebery, etc. In other contexts, the user may be thinking of inland mountains and rainforests rather than of a coastline.

Midlands: The true *Midlands* are probably the Central Plateau but the Tasmanian term means the rural area east of the Plateau and lying along the axis of the Hobart–Launceston road (the *Midland* Highway).

PREFACE

This issue of the Tasmanian Year Book appears in the Australian Bicentennial year and presents a cohesive picture of the State of Tasmania seen from a number of different viewpoints.

Although there are elements of historical development included, the emphasis of the text and the statistics is on recent social and economic life in Tasmania. The statistics are designed to complement the text and to provide a quantitative view. In the same way that the commentary of a football match is enhanced by providing quarter-by-quarter scores and the numbers of kicks, marks, handballs and free-kicks, so the statistics on the number of sheep, the value of wool production, the tonnes of woodchips exported, the numbers of births, deaths and marriages, with commentaries and stories, provide a comprehensive picture of Tasmania.

The statistics presented in this volume are only a fraction of those available. If more detail, or statistics over a longer time frame are required, there are references at the end of each chapter that provide sources of further information.

The Australian Bureau of Statistics also provides an Information Service which, on request, supplies available statistical information and publications. All publications of the ABS and other statistical material are held in the Office library which is open to the public for reference purposes. People in business, manufacturers, primary producers, government authorities, students and the public generally are invited to make use of these services. Anyone requiring advice about the availability or interpretation of statistical information is invited to contact the Information Officer on (002) 205 800.

In producing a volume of this nature, the ABS relies on a number of staff within its own ranks and from people outside the ABS. I extend my thanks to all those who made a contribution to this edition, from supplying photographs to writing text and commentary; their effort and skills have made this volume possible.

Statistics are not just created. They are derived from information supplied to the ABS on statistical returns completed by individuals, businesses, Commonwealth, State and local government authorities, and other organisations. The ABS appreciates and relies on the assistance of these people and organisations in all its work.

STUART JACKSON
Deputy Commonwealth Statistician
and *Government Statistician of Tasmania*

Australian Bureau of Statistics
HOBART, August, 1988

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CHAPTER 2: PHYSICAL ENVIRONMENT

Bureau of Meteorology
National Parks and Wildlife Service
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CHAPTER 3: GOVERNMENT AND ADMINISTRATION

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Department of the Premier and Cabinet
Department of Public Administration
Electoral Department
Australian Information Service
Government House

CHAPTER 4: LAW AND ORDER

Tasmania Police
Law Department

CHAPTER 7: LABOUR AND THE WORKPLACE

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The Menzies Centre for Population Health Research

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CHAPTER 13: MINING

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CHAPTER 14: FORESTRY AND COMMERCIAL FISHING

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CHAPTER 16: MANUFACTURING

Tasmanian Development Authority

CHAPTER 17: HOUSING AND CONSTRUCTION

Defence Service Homes Corporation
Tasmanian Development Authority
Master Builders Association
Department of Housing

CHAPTER 18: TRANSPORT AND COMMUNICATION

Department of Main Roads
Australian National Railways Commission
Telecom Australia
Australia Post
David Waters
Australian Broadcasting Tribunal

Chapter 1

HISTORY AND CHRONOLOGY

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Chapter 1

HISTORY AND CHRONOLOGY

Aboriginal people have been in Australia for at least 50 000 years. They probably came from Java and perhaps China, crossing the sea to the Australian continent on some kind of watercraft. They then spread to the most fertile areas, arriving in Victoria at least 30 000 years ago.

Tasmanian Aborigines arrived in Tasmania more than 20 000 years ago. They are the descendants of the first colonists of the Australian continent. By 12 000 years ago, they had become isolated from the rest of Australia by the rising sea flooding the Bass Plain. The creation of Bass Strait brought about the cultural and physical isolation of the Tasmanian Aborigines.

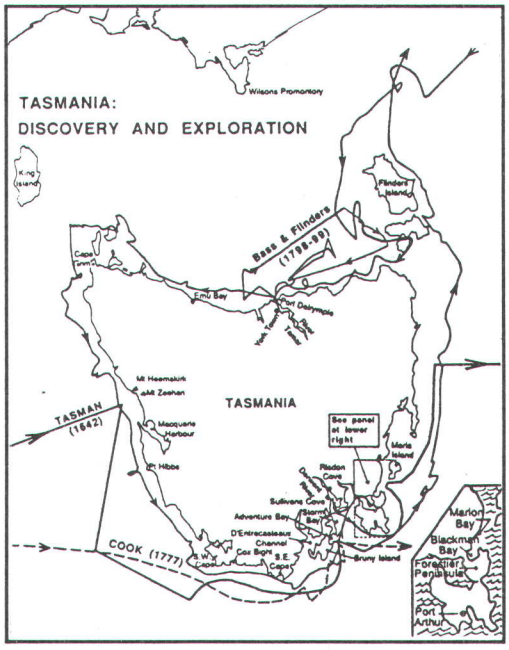
The duration of this isolation is probably unique amongst human populations, and led to some distinctive characteristics. Some generalised physical features distinguish Tasmanian from typical mainland Aborigines. Cultural isolation is particularly evident in that some specialised stone tools, boomerangs and spear throwers did not reach Tasmania, having been invented after it was cut off. Tasmanian aborigines were nonetheless successful colonists; they survived the Ice Age and were a viable population of 4 000 to 5 000 when Europeans arrived.

1.1 EUROPEAN DISCOVERY

1.1.1 Dutch Exploration, 1606–1642

In 1606, Captain William Jansz in the Duyfken was sent from Java to explore the islands of New Guinea and, crossing Torres Strait unawares, coasted along the west of Cape York Peninsula. This was the first of a series of voyages which encountered the northern or western shores of the unknown land.

Not all voyages were undertaken with the aim of exploration; Dirk Hartog's long journey along the western shore of Australia in 1616 resulted from his sailing too far east on the route from the Cape of Good Hope to Java. Some later captains on the same route even regarded the western Australian coast as a suitable landfall before turning north for Java — an indication of the difficulty of navigation when longitude had to be established by dead reckoning.



The Dutch East India Company (from its base in Batavia, now Djakarta, Indonesia) was active in the development of trade and exploration in the region. This activity expanded in the early 17th century and in 1642 Abel Tasman, an experienced and skilled navigator, sailed from Batavia to explore hitherto unknown southern and eastern waters.

1.1.2 Chronology: 1642–1802

1642 Abel Janszoon Tasman, commanding *Heemskirk* and *Zeehan*, sighted the west coast and named his discovery 'Anthony Van Diemensland'. Landings were made on the Forestier Peninsula and near Blackman Bay on the east coast.

1772 The landing of a party from the French Du Fresne expedition at Marion Bay resulted in an affray with the Aboriginals.

1773 Tobias Furneaux, in the *Adventure*, became separated from James Cook in the *Resolution* and landed a party at Adventure Bay, Bruny Island.

1777 James Cook anchored the *Resolution* in Adventure Bay on his third southern expedition.

1789 John Henry Cox, on a sealing expedition from England, sailed the *Mercury* from Cox Bight to Maria Island.

1792 William Bligh, on a second voyage to the Pacific to secure breadfruit, charted the south-east coast.

1793 D'Entrecasteaux returned for further exploration of the south-east coast. John Hayes, commanding the *Duke of Clarence* expedition, explored the Derwent River.

1798 Matthew Flinders and George Bass circumnavigated Tasmania.

1802 Nicholas Baudin, commanding the *Geographe* and *Naturaliste*, explored the south-east coast.

1.2 SETTLEMENT

1.2.1 Settlement on the Derwent

Several reasons for the establishment of a settlement in Van Diemen's Land in 1803 were cited by Philip Gidley King, Governor of New South Wales —

- to prevent the French from gaining a foothold;
- to relieve Port Jackson by dividing the convicts;
- to provide another source of timber and other natural products;
- to encourage the seal fisheries; and
- to enable large-scale grain-growing.

New territories were also needed to accommodate an increasing number of transported prisoners in this early stage of Australia's settlement. Fifteen years had elapsed since Port Jackson's foundation and, up to that time, six to seven thousand prisoners had arrived. Further, because Van Diemen's Land was so remote and insular it was considered an ideal location for a penal settlement; there were few means of escape for the convicts.

In August 1803, Lieutenant John Bowen (aged 23) and Surgeon Mountgarrett, accompanied by eight soldiers, 29 convicts and 10 free settlers, disembarked from the *Lady Nelson* and the *Albion* at Risdon Cove, on the east bank of the River Derwent. Bowen judged the site to be suitable for occupation, with fertile soil, a fresh-water river ample for the needs of a settlement, and an appropriate landing place. Bowen later reported, "I named my settlement *Hobart*".

In February 1804, Lieutenant-Governor Collins landed at Bowen's settlement. At the request of Governor King, his party, including marines and convicts, had arrived at Port Phillip from England on the *Ocean* and the *Lady Nelson*. However, this site, at the other end of the bay from where Melbourne now stands, had been abandoned as it lacked adequate fresh water. Collins had then decided to move to the Derwent because of its reputation as a safe harbour and the fact that Risdon had already been settled. Collins was not pleased, however, with the site of the Risdon settlement; the land was steep, relatively infertile and exposed to cold winds, the river that had first attracted Bowen had dried up, the landing place was accessible only at certain tides, and the storehouse would be endangered by heavy rains. Bowen's party had arrived just before spring while Collins's expedition followed at the end of the following summer. Sullivan's Cove was selected by Collins as the site for the new settlement. It had a deep-water anchorage close to the shore, a fresh-water stream which ran from Mt Wellington, and a plentiful supply of timber close by. As well, nearby Hunter Island was useful for the landing of stores.

1.2.2 Settlement on the Tamar

While Lieutenant-Governor Collins was still in Port Phillip Bay, wondering where best to settle, he had sent William Collins on a voyage of exploration to the Tamar Estuary. By the time Collins returned, with reports of the Tamar as favourable for settlement, the Lieutenant-Governor had already decided to move to the Derwent.

A short while later, Governor King received a despatch from Lord Hobart which recommended the establishment of a colony at Port Dalrymple on the Tamar.

King nominated Lieutenant-Colonel William Paterson as Lieutenant-Governor of the new colony who then set sail with two ships. After a first attempt was forced back by adverse winds, the party of 181 soldiers and convicts, now in four ships, arrived at Outer Cove (George Town) on 4 November 1804. After exploring the region, Paterson established York Town as his headquarters.

1.3 1804–1811: THE FIRST SEVEN YEARS

Of the 262 persons who first colonised Sullivan's Cove, only 31 were free settlers. After the first Sunday church service, the settlers were moved to a site near New Town Bay, a location where agriculture in Van Diemen's Land had its first beginnings. Land near Farm Bay (now the Cornelian Bay cemetery) was prepared for the sowing of wheat.

Initially the village around Sullivan's Cove mostly comprised officers' tents; the hospital was a marquee and the only building was the wooden cottage of the Governor. Equipment was poor and many of the convicts were old and unfit for sustained work; food was scarce and had to be supplemented by meat from native animals.

By 1805 there were still only 470 people in the village; most of the incoming persons were prisoners (309 in total, including 35 women). It was not until 1808 that the population increased significantly to about 1000 persons. Many were Norfolk Islanders who established a new settlement called Elizabeth Town (later called New Norfolk). In the north of the island the Tamar settlement was moved from York Town to Launceston in 1806, and in 1807 a party despatched from Port Dalrymple crossed the island to Hobart.

After Governor Macquarie arrived in 1811 he began to plan the layout of Hobart Town. He named and selected Mount Nelson as a signal station and issued an order to divide the town into one principal square and seven streets. He intended that George's Square (Franklin Square) would be the focal area, as the church, courthouse and main guardhouse overlooked it.

1.4 CHRONOLOGY: 1812–1984

1812 Lieutenant-Governor Thomas Davey arrived. The northern settlements at Port Dalrymple were made subordinate to Hobart. The *Indefatigable* brought the first shipload of convicts direct from England.

1815 Hobart and Port Dalrymple were declared free ports for import of goods. Davey proclaimed martial law against bushrangers. James Kelly circumnavigated the island in a whaleboat.

1816 First issue of *Hobart Town Gazette*.

1817 Succession of William Sorell as Lieutenant-Governor.

1820 John Thomas Bigge conducted an inquiry into colonial administration.

1821 Second term by Governor Macquarie.

1822 A penal settlement was established at Macquarie Harbour.

1823 A British Act for the better administration of justice in NSW and Van Diemen's Land was passed.

1824 Inauguration of Supreme Court, arrival of Lieutenant-Governor George Arthur.

1825 The first Launceston newspaper, the *Tasmania and Port Dalrymple Advertiser*, was published. Tasmania was constituted a colony independent of NSW. An Executive and Legislative Council was established. Martial law was proclaimed against Aboriginals.

1829 First settlement at Emu Bay (Burnie).

1830 George Augustus Robinson began his mission to conciliate the Aboriginals. Juries were used for the first time in civil cases. The 'Black Line', the military campaign to round up the Aboriginals was commenced. Publication of *Quintus Servinton*, the first novel to be published in Australia. Port Arthur was established as a penal settlement.

Port Arthur 1830–1877

Colonel George Arthur arrived in Van Diemen's Land in 1824 and set about classifying convicts into seven classes:

- ticket-of-leave prisoners allowed to work for wages and become more self-sufficient;
- servants (assigned to free settlers);
- those employed by the Government in public works;
- members of road gangs;
- prisoners serving hard labour in chains;
- convicts sentenced to severe hard labour in separate penal settlements (e.g. those sent to Maria Island); and
- prisoners sent to Macquarie Harbour after conviction for the worst crimes.

A decision to abandon the Macquarie Harbour prison, due to its inaccessibility and harsh natural environment, necessitated the establishment of another penal settlement closer to Hobart. The Tasman Peninsula was selected because the only land access was by the very narrow Eaglehawk Neck, which could be easily patrolled. The peninsula was also considered appropriate as it had an abundant source of building timber. Port Arthur was established in 1830.

By 1833, convicts had been transferred from Macquarie Harbour and Maria Island, bringing

the total number of prisoners at Port Arthur to 675 (approximately five per cent of all convicts in Van Diemen's Land).

Provision was made for convicts to learn a trade which would be of use on completion of their sentences. The trades included farming, shoe making, ship-building, brickmaking, ironwork and leathercraft. A probation system was introduced in 1840 whereby convicts worked in gangs in unsettled areas of the peninsula for periods of time. If a probation period was completed satisfactorily, a prisoner would receive a probation pass, then a ticket-of-leave and, if the good behaviour continued, a conditional pardon. Probation stations were set up at Cascades (Koonya), Wedge Bay, Flinders Bay, Slopen Island, Saltwater River and Impression Bay (Premaydena).

Port Arthur closed in 1877. Convicts still serving sentences were transferred to the prison in Hobart. Some of the buildings were sold at auction and, in the latter part of the century, major bushfires damaged the remaining settlement. Recent years have seen a renewed interest in preserving the once-thriving penal establishment.

1831 The British Government's new land regulations, discontinuing free grants of land, and replacing them with land sales, were approved.

1832 First shipment of Aboriginals to Flinders Island. A Caveat Board was established to settle land disputes and to confirm titles. Maria Island was closed as a penal settlement.

1833 Macquarie Harbour penal settlement was closed.

1834 The Henty brothers from Launceston became the first white settlers in Victoria, occupying land in the Portland Bay area.

1835 John Batman sailed from Launceston to Port Phillip as agent for the Port Phillip Association. Tasmania was divided into counties and parishes. The Ross Bridge was opened. Tasmania's population was estimated as 40 172 persons.

1837 Sir John Franklin assumed office as Lieutenant-Governor.

1838 Sessions of the Legislative Council were opened to the public.

1840 Transportation to NSW ceased; the numbers transported to Tasmania consequently increased. The population was estimated as 45 999 persons.

1841 A Probation System of convict discipline replaced the Assignment System. The Rossbank Observatory for magnetic and meteorological observations was established in Hobart.

1842 Tasmania was created a separate Anglican diocese. Hobart was made a city. Peak year for convict arrivals (5 329).

1843 Sir John Franklin was recalled as Governor. He was succeeded by Sir John Eardley-Wilmot.

1844 Norfolk Island penal settlement was transferred from NSW to Tasmanian control.

1845 Six members of the Legislative Council (the 'Patriotic Six') resigned when the Governor used what they considered unconstitutional means to impose increased duties on various goods.

1846 Eardley-Wilmot was recalled. Foundation of the Launceston Church Grammar and The Hutchins Schools.

1847 Sir William Denison, the new Lieutenant-Governor, re-appointed the 'Patriotic Six'.

1848 Tasmania was now the only place of transportation in the British Empire.

1850 The Anti-Transportation League was established. The population was estimated to be 68 870 persons.

1851 Limited representative government; first elections for 16 non-appointed members of the Legislative Council were held.

1852 Payable gold was first found near Fingal. Elections were held for the first municipal councils in Hobart and Launceston.

1853 The last convicts to be transported arrived. Van Diemen's Land's first postage stamp (Penny Blue) was issued.

1854 Bad floods disrupted the Colony. A Bill establishing responsible government was passed.

1855 Sir Henry Fox Young succeeded Denison, and was accorded the title of Governor. The Constitution Act, enabling responsible government, was passed.

1856 Van Diemen's Land was renamed Tasmania. The advent of responsible self-government was followed by the opening of a new bi-cameral Parliament with W.T.N. Champ leading the first government in the House of Assembly.

1858 A Council of Education was set up and the *Rural Municipalities Act* passed.

1859 Charles Gould was appointed to undertake a geological survey of western Tasmania. A telegraph link was established with Victoria.

1860 The population was estimated at 89 821 persons.

1861 Colonel Thomas Gore Brown was appointed Governor. The telegraph cable to Victoria failed.

1862 A scheme for a railway between Launceston and Deloraine was promoted.

1864 The first successfully transported salmon and trout ova were hatched.

1868 Alfred, Duke of Edinburgh visited Tasmania. Primary education was made compulsory.

1869 William Lanny, the last male full-blood Aboriginal, died. Sir Richard Dry, the first Tasmanian-born Premier, died. A new telegraph cable was laid to Victoria.



Sir Richard Dry **Photo:** ***Allport Library***

1870 The remaining Imperial troops were withdrawn. Population 99 328 (Census).

1871 The Launceston-Deloraine railway was opened. Tin was discovered at Mt Bischoff.

1872 A contract was let for building the Tasmanian Main Line Railway.

1873 The Tasmanian Main Line Railway Co. commenced construction, marking the start of an economic recovery.

1874 There were riots in Launceston in protest at rates levied for the Launceston-Deloraine railway.

1876 Race meetings commenced at Elwick. A gold nugget worth $12 200 was found at Nine Mile Spring. Trugannini, the last female full-blood Aboriginal died. The Main Line Railway opened for traffic.

1877 Port Arthur was closed as a penal settlement.

1878 Mineral exploration of the West Coast was increased.

1879 A rich lode of tin was discovered at Mt Heemskirk.

1880 The first telephone was installed in Tasmania with a line from Hobart to the Mount Nelson Signal Station.

1881 Population 115 705 (Census).

1883 Discovery of the 'Iron Blow' at Mt Lyell.

1885 A Russian-war scare was followed by activity in improvement of defences. The Mt Lyell Prospecting Association was formed.

1890 The University of Tasmania was established.

1891 The Van Diemen's Land Bank collapsed; a deep depression ensued.

1892 The Mt Lyell Mining Co. was established.

1896 Tattersalls Lottery was established by George Adams.

1898 Bush fires ravaged Tasmania. Tasmanians voted four to one in favour of Federation at a poll.

1899 The *Southern Cross* (Borchgrevinck) expedition departed Hobart for the Antarctic.

1900 The Tasmanian contingent to fight in the Boer War departed.

1901 The Commonwealth was proclaimed; polling was held for the first elections to the Federal Senate and House of Representatives. Population 172 475 (Census).

1903 The celebration of 100 years of settlement was cancelled because of a smallpox epidemic in Launceston. Suffrage (voting rights) was extended to women.

1905 Experiments in wireless telegraphy between Tasmania and the mainland were undertaken.

1907 A new Public Library opened in Hobart, built with a gift from Andrew Carnegie.

1909 Irish blight wiped out the State's potato crop. The State's first Labor Government under John Earle was elected.

1912 The North Lyell Mine, Queenstown, suffered a disastrous fire.

1914 First aeroplane flight in Tasmania. Tasmania's first contingent to fight in Great War departed. The Hydro-Electric Department was formed; the Government purchased a private hydro-electric power scheme and commenced a policy of encouraging high-energy-using companies to set up in Tasmania.

1915 Serious bush fires occurred.

1917 The Electrolytic Zinc works at Risdon and the Snug carbide works were established.

1918 The Great War ended.

1919 Frozen meat was exported for the first time.

1920 Visit by Edward, Prince of Wales. Cadbury's purchased a site at Claremont for a chocolate factory.

1921 Population 213 780 (Census).

1922 The Waddamana power station was completed.

1924 Superphosphate was first manufactured in Tasmania by the Electrolytic Zinc Co. at Risdon.

1925 Osmiridium fields were discovered at Adamsfield.

1927 An inquiry into a proposed bridge over the Derwent at Hobart was held. The Duke and Duchess of York (later King George VI and Queen Elizabeth) visited Tasmania.

1929 Automatic telephone facilities were introduced to Hobart. Economic depression and serious floods affected Tasmania.

1930 Export prices fell to half the 1928 levels. The Australian pound was devalued so that £1 sterling equalled £1/5s.

1931 The Depression continued — the federal basic wage was cut by 10 per cent. An austere Premier's Plan included a conversion loan to reduce the rate of interest on internal federal debt by 22½ per cent. Senior Ministers, including J.A. Lyons from Tasmania resigned from the Scullin Government. Following the carrying of a vote of no-confidence in the Government, elections were held at which the Scullin Labor Government was swept from office. Lyons led the opposition United Australia Party to victory.

1932 Joseph Lyons was sworn in as Prime Minister.

1933 A Commonwealth Grants Commission was appointed to inquire into the affairs of claimant States.

1934 Thirty-five years of continuous Labor Government in Tasmania began with the election of the A.G. Ogilvie Ministry. The second phase of hydro-electric development commenced at Tarraleah and Butlers Gorge.

1936 Tasmania was linked with Victoria by a new sub-marine cable.

1937 An epidemic of poliomyelitis occurred. Economic recovery resulted in five shillings 'prosperity loading' being added to the federal basic wage.

1938 A paper mill using native hardwoods was established at Burnie. The first turbines began operating at the Tarraleah power station.

1939 World War II began. Prime Minister Lyons died in office.

1940 Tasmanians sailed for the Middle East with the Australian 6th, 7th, and 9th Divisions.

1941 Newsprint production began at Boyer on the Derwent. Tasmanians sailed for Malaya with the Australian 8th Division.

1942 Uniform federal income tax commenced.

1943 The floating-arch Hobart Bridge opened for traffic.



Photo: *Mercury*

1944 Pay-as-you-earn (PAYE) income taxation was introduced from 1 July.

1945 World War II ended.

1946 The Legislative Council rejected a bill to grant Federal Government price control powers for three years.

1947 'Displaced persons' commenced arriving from Europe. Population 257 078 (Census).

1948 A forty-hour week was awarded to most workers from 1 January. The High Court rejected as unconstitutional the *Commonwealth Bank Nationalisation Act, 1947*. Tasmanians voted 'No' almost two to one in a referendum denying Federal Government power over prices and rents. The Legislative Council's denial of Supply forced the dissolution of the House of Assembly — the Cosgrove Ministry was returned to power.

1949 Compulsory chest X-rays were introduced in the fight against tuberculosis. Clark Dam at Butlers Gorge was completed. The Theatre Royal was purchased by the Government.

1950 Federal petrol rationing ended. Dissolution of the House of Assembly was granted by the Governor and the Cosgrove Ministry was returned to power.

1951 The *Communist Party Dissolution Act* was declared invalid by the High Court. A double dissolution of Federal Parliament together with a referendum to give Federal Government powers in regard to communism. The 'No' vote prevailed, although Tasmanians expressed a slight preference for 'Yes'.

1952 A single licensing authority was established for hotels, clubs etc. The State's free hospital scheme ceased.

1953 The Arbitration Court abandoned the system of quarterly adjustment of the federal basic wage. State wages boards suspended quarterly basic wage adjustments.

1954 The Queen visited Tasmania for the first time. A bill was passed to resolve deadlocks in the House of Assembly. The Metropolitan Transport Trust was formed.

1955 The Bell Bay aluminium plant and the Trevallyn and Tungatinah power schemes were opened.

1956 The State wages board restored the 'cost-of-living' adjustments effective from 1 February but later suspended them. The House of Assembly was dissolved and Labor returned to power. The EZ Company's sulphate of ammonia plant was opened. The Centenary of self-government was celebrated.

1957 The Legislative Council rejected a bill giving aid to private schools. The first satellites — Sputniks I and II — were seen over the State.

1958 The Rivers and Water Supply Commission was established, together with the Public Service Tribunal as an industrial authority.

1959 The first election to fill 35 seats in the enlarged House of Assembly resulted in Labor being re-elected. The *Princess of Tasmania* commenced roll-on roll-off ferry service from Melbourne to Devonport.

1960 Liapootah power station was commissioned. The Zeehan-Strahan railway closed. The Inland Fisheries Commission was created. First Tasmanian telecasts began.

1961 The *William Holyman*, a cargo container vessel, entered Bass Strait trade. The Legislative Council rejected equal pay legislation.

1962 The Catagunya power scheme turbines began producing electricity. State Wages Boards granted three weeks annual leave. State subsidies were announced for municipal fluoridation schemes.

1963 The Federal Court increased margins by 10 per cent and granted three weeks annual leave. The Universities Commission recommended a medical school for the Tasmanian University. The Mt Lyell railway, from Queenstown to Strahan, closed.

1964 The Tasman Bridge opened for traffic. Hobart's water supply was fluoridated. Glenorchy was raised to city status.

1965 Provisional driving licences were introduced. A Dental Nurse scheme for schools was implemented.

1966 Decimal currency was introduced. The Burnie-Launceston co-axial cable was completed. Equal pay for certain State Public Service females was granted. Breathalyser tests were approved for use by police. Subscriber-trunk-dialling was introduced.

1967 The bush fire disaster of 7 February resulted in 62 deaths and over 1 000 houses destroyed. The Federal Arbitration Commission abolished the basic wage and substituted a total wage concept but the basic wage was retained in State awards. The Mt Cleveland tin mining town of Luina was completed.

1968 The HEC Repulse Dam on the lower Derwent was completed. The Batman Bridge across the lower Tamar was opened. The Federal Government granted a subsidy for apples and pears exported to the UK and other countries. Full adult suffrage for Legislative Council elections from 1 July 1969 was introduced. Capital punishment was abolished.

1969 Parangana Dam (Mersey-Forth scheme) was completed. A State election resulted in the election of 17 ALP, 17 Liberals and one Centre Party member (Mr Kevin Lyons). Mr Lyons combined with the Liberals to form a coalition government, ending a 35-year Labor rule in Tasmania. The Full Bench of Federal Arbitration Commission granted equal pay to females performing equal work. The copper smelter at Mt Lyell was closed; concentrate was now sent to Japan and Port Pirie (SA) for treatment.

1970 The first pyrites from Rosebery were railed to the Burnie sulphuric acid plant. The EZ Co. commenced a $6.3m residue treatment plant. Parliament legislated to introduce permanent daylight saving.

1971 APPM Ltd's Wesley Vale paper plant was opened. A serious shipping strike occurred. The Population Census count was 390 413 persons.

1972 K.O. Lyons resigned cabinet portfolios and ended the Liberal-Centre Party Coalition. The ANL vessel *Princess of Tasmania* made her final trip to Tasmania. Federal elections resulted in the ALP being returned to power after 23 years in opposition.

1973 The Bell Bay rail link, the first legal casino in Australia, Wrest Point and the $121m Mersey-Forth HEC scheme were officially opened. Storeys Creek tin mine closed down. The *Blythe Star* was lost at sea. Tasmania voted in line with other Australian States on prices and incomes referenda; 'No' to both.

1974 Workers under State Wages Boards' awards were granted four weeks annual leave; women were awarded equal pay. Gordon Dam completed. A no-fault third party insurance scheme was implemented.

1975 Tasmanian suburban rail services ceased. Bulk ore carrier *Lake Illawarra* rammed the Tasman Bridge resulting in a 128-metre gap and 12 deaths. The TAB began operating. Transmission of colour television programs commenced in Tasmania. The Federal Government took over Tasmanian railways. Hotels were allowed to open for Sunday trading.

1976 Sea cargo to and from Tasmania was subsidised by a freight-equalisation scheme. The South-West National Park was doubled in size in line with South-West Management Plan proposals.

1977 The Federal Government confirmed Kingston as the site for Australia's new Antarctic Division Headquarters. The Tasman Bridge was re-opened. Drought conditions in many parts of the State were the worst for 30 years.

1978 The Tasmanian railways came under full control of the Australian National Railways Commission. All regular passenger train services in Tasmania ceased. A major study of the State's coal reserves revealed potential deposits of 251 million tonnes in the Fingal Valley.

1979 The State Government expanded the South-West Conservation area to more than 20 per cent of the State's total area. The State's first Ombudsman was appointed. Tasmania's Parliamentary Hansard was introduced. Mr Bill McKinnon (Labor), who lost his seat in the July election, filed a petition in the Supreme Court claiming that a new Labor MHA in Franklin, Michael Aird, had breached the *Electoral Act* by spending more than the statutory limit of $1 500 on his election expenses. This began the so-called 'Electoral' or 'Constitutional Crisis'. The HEC released a report which recommended a $1.36 billion power development scheme involving the Lower Gordon, Franklin and King Rivers to meet the State's electricity needs until the year 2000.

1980 Work commenced on the second Hobart bridge. A by-election for the Denison electorate was held after the 1979 'electoral crisis'. The Treasurer introduced legislation into the House of Assembly to allow $530m to be spent on the HEC's Pieman River development. East-West Airlines were given approval for the only direct Hobart-Sydney air service. The National Parks and Wildlife Service started a major advertising and promotion campaign aimed at short-circuiting the HEC's proposed Franklin-Lower Gordon power scheme. The State Government decided to save the Franklin River by opting to flood the Gordon at its junction with the Olga and to construct four separate schemes on the King River. Parts of Southern Tasmania faced the worst drought since white settlement. The Gordon-above-Olga power scheme was passed by the House of Assembly. The first direct flight from Hobart to Christchurch was made by Ansett Airlines. The Upper House Select Committee recommended the HEC's proposed Gordon-below-Franklin scheme and rejected the Government proposed Gordon-above-Olga scheme legislation.

1981 Bushfires at Zeehan destroyed 40 homes. The State Government banned Saturday afternoon trading by companies employing more than 100 people on a statewide basis. The Federal Government agreed to subsidise airfares to and from the State by 10 per cent following acceptance of the Holcroft report. A referendum was announced for November concerning the State's next power development. The Premier, Mr Doug Lowe, was deposed and Mr Harry Holgate replaced him as Premier. Mr Lowe resigned from Cabinet, Caucus and the ALP and took his place in the House of Assembly as an independent. The State Labor Government lost its majority in the House of Assembly with the resignation of Mrs Mary Willey. The Tasmanian Conservation Foundation

called for an informal vote in the referendum by writing 'no dams' on the ballot paper. A Royal Commission was appointed to investigate the powers of the Legislative Council. The referendum resulted in an extremely large informal vote but most supported the Gordon-below-Franklin option.

1982 The South-West National Park, the Franklin-Lower Gordon Wild Rivers National Park and the Cradle Mt-Lake St Clair National Park were nominated by the Federal Government for the World Heritage List; both proposed dam sites lay within the nominated area. The Holgate Labor Government was defeated on a no confidence motion by a majority vote of the Liberal Opposition, two Labor defectors and a Democrat. The ensuing election resulted in the Liberal Party forming a Government in its own right for the first time in Tasmania's history. Legislation for the controversial $453m Gordon-below-Franklin power scheme finally passed through Parliament. State Government requested Federal aid to help fund Tasmania's record deficit estimated at $38m. The Federal ALP Conference decided to oppose the construction of the Gordon-below-Franklin scheme. The Federal Labor Party announced a no-dams policy for a Federal Labor Government in a decision which split the party in the State. Tasmanian police were given new powers in a bid to combat a blockade of dam site construction in the South-West by conservationists. The Senate Select Committee on South-West Tasmania came out against building the dam. The Attorney-General, Mr Bingham, announced that Tasmania had formally applied to have its opposition to World Heritage listing heard by the World Heritage Committee in Paris and announced that he would go to Paris to lobby the Committee. The Federal Government announced it would not intervene in the construction of the Gordon-below-Franklin dam. The World Heritage Commission placed Tasmania's endangered South-West wilderness area on its list. A total of 196 people were arrested for trespassing at the dam site.

1983 New drink-driving legislation reducing the permissible blood alcohol level for drivers from .08 to .05, and introducing random breath tests, came into force. The Shell Co. of Australia revealed that coal mining at Mt Nicholas in the north-east could be sustained for 40 years. Tas-

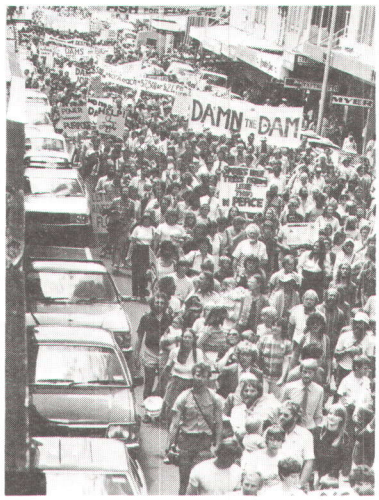


Photo: *Mercury*

mania's unemployment rate rose to 11.4 per cent. The Premier, Mr Gray, rejected $500 million, offered by the Federal Government to delay construction of the Gordon-below-Franklin dam. Tasmania's biggest ever rally was held to protest against the damming of the Franklin River; an estimated 12 000 to 20 000 people attended. The Federal Opposition Leader, Mr Hawke, pledged to stop construction of the Gordon-below-Franklin power scheme and offered financial assistance to meet the State's energy needs to the year 2000 as well as alternative employment for the HEC workforce should the Labor Party win government on March 5. Hobart experienced its driest summer for 85 years. The Liberal Party was defeated by the Labor Party in the Federal election although Tasmania's five Liberal members of the House of Representatives were re-elected. Mr. Hawke was sworn in as Australia's new Prime Minister. Regulations under section 69 of the *National Parks and Wildlife Act* 1975, gazetted by the Federal Government, made any further work on the Gordon-below-Franklin dam illegal. A Commonwealth writ, seeking an injunction to permanently stop work on the proposed Gordon-below-Franklin dam, and a Tasmanian writ seeking a declaration from the High Court that regulations under which the Commonwealth was acting were constitutionally invalid, were filed in the High Court. The Daylight Saving Bill, to permanently entrench a five-month period, was passed by the House of Assembly. The lowest temperature yet recorded in Tasmania, -13°C, was regis-

tered. The High Court, in a landmark decision, ruled that the Gordon-below-Franklin dam could not go ahead. Alternative works to the Gordon-below-Franklin dam began. These included the Guildford-Hampshire and Cradle Mountain road links, the Mt Black deviation near Tullah, and the Lyell Highway 14 mile deviation. The Federal Government committed $23 585 000 compensation for job alternatives to the south-west dam. The State Government decided to speed up work on access roads for the $460 million Henty-Anthony and King River hydro power schemes. The Premier put the comprehensive, long-term south-west dam compensation at $3 455 million. The Legislative Council took only 30 minutes to approve the $549 million King and Anthony Power schemes.

The new Devonport $6.5 million jet airport was officially opened. A Legislative Council Select Committee report recommended the formation of a greater city of Launceston by amalgamating the urban areas of five surrounding municipalities. The greater Launceston proposal was rejected by four of the six municipalities involved in the referendum held to decide the issue.

1984 Thousands of dollars worth of plantation and regenerated forest, sawlogs, and pulp wood were destroyed by fire. Marihuana plants with an estimated street value of $150 000 were seized at Smithton. Industrial Equity Ltd gained control of Cascade Brewery Co. Ltd. The United Launceston Citizens' Committee continued to push for a Launceston municipal amalgamation. The $48.5 million Bowen Bridge was opened by the Prime Minister, Mr Hawke. The HEC was fined $750 in the Hobart Magistrate's Court on two charges of polluting the Pieman River. The Tasmanian Wilderness Society launched a campaign for the creation of a 1 760 000 hectare world class national park in Western Tasmania. The Premier, Mr Gray, offered to trade his $319 million compensation claim on lost South-West jobs for the $1.5 million submarine construction venue and exclusive 200 mile zone fishing rights. The Federal Government ruled out any South-West compensation deals with the Tasmanian Government concerning the site for the Navy submarine contract. The Federal Government offered the Tasmanian Government $270 million South-West compensation settlement. Fifty employees (one-third of the total) at Cleveland Tin Mine were retrenched. The Tasmanian Government accepted in principle the Commonwealth $270 million South-West compensation offer. The State Government won its battle against the Legislative Council to link parliamentary salaries to rises awarded to its public servants. The Wrest Point Convention Centre was opened. The Federal Government announced that it would give Tasmania $26 million to buy a West German replacement for the *Empress of Australia*. Fire caused approximately $1 million damage to Hobart's historic Theatre Royal. Mr Hawke and Mr Gray signed an agreement for $270 million compensation to Tasmania for the loss of the Gordon-below-Franklin power scheme. The Premier announced a $6.9 million road building project to make Queenstown the gateway to the South-West World Heritage area. The State Government announced plans to spend $6 million of dam compensation funds on upgrading the Hobart Airport. The overseas vessel *Nils Holgersson* was named as the definite replacement for the ageing ferry *Empress of Australia*. The intersection of Hobart's Macquarie and Murray Streets was declared the most historic and prestigious commercial city intersection in Australia. The State Government announced it would hand over all Aboriginal remains held in Tasmanian museums to the local aboriginal community. The State Budget included the introduction of $5 000 per job subsidy designed to create work for 2 000 Tasmanians, as well as a record allocation for a capital works program of $561.2m. The State Government agreed to tighter restrictions on shop trading hours. Tasmania's first mobile breath analysis units were brought into use. The Federal Government provided $3 million for the upgrading of Hobart Airport. Hobart experienced 28 millimetres of rain in an hour causing damage in low lying areas in and around Hobart. Following objections by professional planners and architects in Hobart to the design, size and appearance of the proposed $50 million international hotel, The Premier Mr Gray requested that the architects who designed the hotel develop an alternative design to 'address public concern'. The State Government proposed that the Launceston and St Leonards Councils amalgamate. The Launceston International Velodrome, costing $6 million was officially opened.

1.5 CHRONOLOGY: 1985

January

Tasmania won the right to host the world open and lightweight rowing championships at Lake Barrington in October 1990. The full-bench of the new State Industrial Commission sat for the first time. Former Deputy-Premier, Mr Neil Batt, announced his return to State politics. Cascade Brewery Co. Ltd gained control of the Tasmanian Four Seasons accommodation chain. State Government announced that it would legislate to amalgamate the municipalities of St Leonards and Lilydale with the City of Launceston to create a new greater Launceston City of over 60 000 people — the largest local government area in Tasmania in terms of population. The Northern Midlands Environmental Protection Committee issued a Supreme Court writ on the Hydro-Electricity Commission in an effort to hinder survey work on the proposed coal-fired thermal power station at Conara.

February

The Federal Government announced international sports complexes for Tasmania: a $2 million hockey centre for Hobart and a $1.2 million netball centre for Launceston. Premier Gray hinted at the development of small hydro-electric power schemes in preference to coal-fired thermal station on environmental grounds. Uniform national credit protection laws on contracts under $20 000 began in all States except Tasmania where the State Government said it would 'wait and see' before legislating. Stage 1 of Launceston's southern outlet (7.4 km costing $20 million) was opened.

March

Devonport's $186 000 bikeway and walking track from the city centre to the olympic pool was opened. A $6 million upgrading of Wynyard Airport was agreed to with joint funding by State and Commonwealth Governments. Plans for the $10 million redevelopment of the Mersey General Hospital at Latrobe were unveiled. The Tasmanian yacht *Intrigue*, skippered by Don Calvert, was selected in Australia's Admiral's Cup Team. Hobart's metropolitan councils challenged the State Government's handling of the municipal amalgamation issue by lobbying members of the Legislative Council to block the controversial legislation. Victorian cyclist, Dean Woods, broke the world 4 000 metre record with a time of 4.34.65 at the Launceston Velodrome. State legislation gave Tasmania's two trustee banks more freedom to compete fully against trading and foreign banks. The Tasmanian Government formally took possession of the new Bass Strait ferry *Abel Tasman* (formerly *Nils Holgersson*) at a handing over ceremony in West Germany. The State Government revealed details of a $22 million West Coast road link between Smithton and Zeehan. The revised design for Hobart's controversial international hotel was unveiled.

April

The controversial Northern municipal amalgamation legislation was passed by the Legislative Council. A $23 million shopping centre for Glenorchy was given Council approval. The nuclear powered cruiser 'USS Texas' visited Hobart. Tasmania's first forest rally attracted 1 200 people to Hobart's Franklin Square. After a lunchtime march through the city's streets the protestors gathered to call for the preservation of Tasmania's forest heritage. The Archibishop of Canterbury, Dr Robert Runcie, visited Hobart.

May

Hobart's $13 million CSIRO Marine Laboratories were officially opened. More than 300 Tasmanian Aboriginals attended the cremation of skeletal remains of their ancestors at Oyster Cove. Federal grants and benefits to Tasmania were slashed by $12.6 million in a mini-Budget; the biggest cut involved the axing of the 10 per cent Commonwealth air fare subsidy for travel between Tasmania and Melbourne.

June

The Bass Strait ferry, *Empress of Australia* made its farewell voyage from Devonport. During its 13 year service it had made 4 600 trips to Tasmania, and carried more than 1.6 million passengers. A State Mini-Budget to save $8.5 million in 1985–86 was brought down by the Treasurer, Mr Gray. The Electrolytic Zinc company announced that it would spend $80 million modernising its Risdon plant to increase productivity. The HEC announced that it would cut its West Coast workforce by 340 over the next 12 months on completion of the 192 megawatt Lower Pieman power scheme.

July

The University of Tasmania appealed to the Planning Appeals Board against the Clarence Council's decision to refuse the installation of a radio-telescope on the University's farm at Richmond. The Commissioner of Police, Mr Max Robinson, black banned the ABC from any police co-operation. The ban followed a report by the 'National' on what it claimed to be fraudulent practices involving the police and the tow truck and vehicle repair industry. The Federal Government announced that it would hand over Hobart's Repatriation Hospital to the State after it had been substantially upgraded. A Federal Government proposal to introduce fees for tertiary education was condemned by the

Vice-Chancellor of the University of Tasmania. Former State Labor Premier, Mr Doug Lowe, announced he would quit the House of Assembly and contest the Legislative Council seat of Buckingham in May 1986. The Minister for Health, Mr John Cleary, confirmed that six people, including a school-age child, in Tasmania were found to have AIDS antibodies in their blood.

August

Federal and State Police raided homes and offices in Launceston as part of the National Crimes Authority's investigation into the Allied Fisheries group, one of the Country's largest fishing organisations. Ansett Airlines announced new jet services through Devonport Airport. The Central Launceston telephone system collapsed for the second time in four days, causing community condemnation of Telecom. Victorian and Tasmanian scallop fishermen disputed rights to rich scallop beds, found off Tasmania's north-east coast, before the beds were closed indefinitely by the Federal Minister for Primary Industry, Mr John Kerin. The $34 million silicon metal plant at Electrona put the Kingborough Council and the State Government on a collision course as the Council voted to re-zone the area. The Government introduced legislation overriding the Council's decision.

September

The State Government declared that 24 November would be known as Tasmania Day. Tasmania's largest meat exporter, Richardson's Meat Industries, closed its Derwent Park abattoir. However, most of the 75 meatworkers were transferred to the company's Bridgewater plant. Senator Brian Archer became the Opposition's new spokesman for science and matters pertaining to the Special Minister of State. The Launceston City Council faced a million dollar plus bill for severance pay after the amalgamation of some northern municipalities. The State Budget gave pay-roll tax relief, assistance to some farmers and promised 2 000 more jobs. The anxiously awaited Evers' Report into Tasmanian football recommended a 10-team, State-wide competition.

October

The total cost of the redundancy scheme, after the amalgamation of St Leonards and Lilydale Municipalities with the City of Launceston, was in excess of $4 million. The Comalco aluminium smelter at Bell Bay announced that it would cut its workforce by 130 over the next twelve months to enable it to remain competitive in a depressed world aluminium market.

November

Senator Peter Rae announced that he would resign from the Federal Parliament to contest Bass for the Liberal Party at the 1986 State Election. In Hobart, hundreds of log hauliers mounted a massive protest at proposed restrictions on the State's timber resources. This protest coincided with a visit to Hobart by the Federal Minister for the Environment, Mr Barry Cohen. 200 000 litres of milk were emptied into paddocks as the result of a strike at United Milk Tasmania Ltd's East Devonport factory. Doctors in Tasmanian public hospitals threatened to resign unless the State Government exempted them from impending legislation which would bring them under the direct control of the Department of Health Services.

December

Heavy rain was dumped over Tasmania, culminating in one of the wettest weeks ever recorded in the State. State Cabinet approved the construction of a chairlift on the Nut at Stanley. Launceston doctors treated 178 children, believed to have come into contact with a deadly influenza germ which had claimed the life of a three-year-old girl. Qantas joined the Tasmania-New Zealand link with its first flight from Auckland to Hobart.

1.6 CHRONOLOGY: 1986, 1987

JANUARY 1986

State Election

Premier Gray announced a State election would be held on 8 February.

Rail Deaths

The State experienced its worst level crossing smash when a freight train collided with a semi-trailer at the River Road crossing near Burnie. Three men were killed when two locomotives and five fully-laden wagons catapulted from the bridge into the Emu River.

Second Passenger Ship Study

The State Government ordered a feasibility study into the need for a second Tasmanian passenger ferry which would service Hobart.

Redundancy Payments

The Launceston City Council received $3.3 million from the State Government to help overcome the Council's cash problems caused by redundancy payments.

Aboriginal Rock Paintings

State archaeologists discovered the first authenticated Tasmanian Aboriginal rock paintings near the Maxwell River in the South-West. The archaeologists believed the paintings could

be about 20 000 years old, making them some of the oldest known human paintings in the world.

JANUARY STATISTICS—TASMANIA	
Seasonally Adjusted Unemployment Rate (% of labour force)	9.5
Value of Retail Sales ($m)	110.5
Value of Building Approvals ($m)	39.9

FEBRUARY 1986

Bass Highway Construction

Approval was given by the Federal Government to re-route the Bass Highway between Penguin and Howth. Expected to cost $30 million and to take eight years to complete, the new 11.5 kilometre section will bypass Sulphur Creek and Preservation Bay.

Motor Vehicle Registration Slump

There were 1 056 new motor vehicles (excluding motor cycles) registered in Tasmania in February 1986. This was 25 per cent less than in February 1985. January and February 1986 were the two lowest months for new motor vehicle registrations since April 1983.

RAN 75th Anniversary

Five naval ships and one submarine visited Hobart to celebrate the Royal Australian Navy's 75th anniversary.

State Election

Mr Robin Gray's Liberal Government was re-elected with a majority of three seats. A record 15 MHAs lost their seats.

Breach of *Shop Trading Hours Act*

G.P. Fitzgeralds and Co. were fined $2 000 for breaching trading hours legislation. The conviction was the first under the provisions of the *Shop Trading Hours Act* which took effect in September 1984.

Opposition Leadership

Mr Batt replaced Mr Wriedt as Opposition Leader and Mr Field replaced Mr Holgate as Deputy Leader.

Bell Bay

Bell Bay's $5.2 million port development was officially opened.

FEBRUARY STATISTICS—TASMANIA	
Seasonally Adjusted Unemployment Rate (% of labour force)	9.2
Value of Retail Sales ($m)	106.9
Value of Building Approvals ($m)	23.3

MARCH 1986

Rushy Lagoon

Rushy Lagoon, a 24 000 hectare grazing property in the far North-East of the State, was sold for $10.1 million. The purchase, by Mr Bert Farquhar, makes him the biggest landowner in the State.

Anti-logging Protest

Forestry workers and conservationists clashed at Farmhouse Creek, near Geeveston. The State Government invoked special legislation making it illegal to enter the logging area without permission. Wilderness campaigner, Dr Bob Brown, an Independent MHA for Denison, was shot at in bush near the site of the protest. The managing director of Risby Forest Industries and his family received death threats over the conservation issue.

Daylight Saving

The State Government secured parliamentary approval to vary future daylight saving periods according to decisions in other States.

Nurse Education

The Education Minister, Mr Rae, announced that the transfer of nurse education from public hospitals to the TSIT in Launceston would be delayed for at least one year.

Halley's Comet

Tasmanian comet enthusiasts had good sightings of Halley' Comet during the month, but overall the comet's visit was much less spectacular than predicted.

MARCH STATISTICS—TASMANIA	
Seasonally Adjusted Unemployment Rate (% of labour force)	9.2
Value of Retail Sales ($m)	111.7
Value of Building Approvals ($m)	33.5
Consumer Price Index (% increase March qtr)	1.6

APRIL 1986

Antarctic Museum

A $5–$7 million international Antarctic museum based on Hobart's Sullivan's Cove was proposed.

Electricity Charges

The HEC announced a 13 per cent increase in Tasmanian electricity charges.

TCA Takeover

An eight-man reform group gained control of the Tasmanian Cricket Board.

Development Control Bill

The State Government abandoned its controversial fast-track development legislation which deprived Tasmanians of the right of appeal against major planning projects.

Hobart International Hotel

Protest began against the use of pink and red brick cladding on the $50 million Hobart International Hotel.

APRIL STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	9.3
Value of Retail Sales ($m)	111.4
Value of Building Approvals ($m)	29.7

MAY 1986

Justice Wright

Mr Justice Wright was appointed a judge of the Supreme Court in Burnie filling the vacancy created by the retirement of Mr Justice Brettingham-Moore.



Photo: *Mercury*

Tasmanian State Bank

The Chairman of LBS Statewide Bank began canvassing the idea that the LBS should form the nucleus of a Tasmanian State Bank.

Derailment

14 fully-laden log wagons were derailed as a log train crossed the Karoola trestle bridge over Pipers River. The train was taking a consignment of woodchip logs to the APPM plant at Longreach.

Hobart International Hotel

The State Government and the developers of the Hobart International Hotel agreed to share the cost of replacing controversial pink bricks used in the construction of the hotel with sandstone coloured bricks.

Port Arthur

The Federal Government withdrew further financial support for the restoration of Port Arthur.

OBITUARY

Former judge Justice Cecil George Brettingham-Moore died in Hobart aged 66. Justice Brettingham-Moore served as Master of the Supreme Court from 1960 to 1985. In addition to his Supreme Court duties he had acted as a magistrate and a commissioner of the Court of Requests and completed various inquiries for the State Government.

Electrona Smelter

The State Government announced the Electrona silicon smelter project would proceed.

Cleveland Mine Closure

The exhaustion of ore reserves and the decline in grade to less than one per cent tin, compounded by poor world tin prices resulted in the closure of the Cleveland tin mine at Luina.

Legislative Council Elections

Legislative Council elections were held in the electorates of Buckingham, Macquarie and South Esk. Elected were Mr Lowe, Mr Shaw, and Mr Archer respectively.

MAY STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	8.7
Value of Retail Sales ($m)	122.6
Value of Building Approvals ($m)	37.8

JUNE 1986

Kings Meadows Shopping Complex

Plans to build a $11 million shopping complex containing a supermarket and 21 speciality shops in Kings Meadows were announced.

Abel Tasman Fares

The State Government announced an increase in Abel Tasman fares of up to 15 per cent.

Premiers' Conference

The Premier sought Cabinet approval to recall Parliament to bring down a mini-budget of tax increases. Mr Gray stated the extraordinary measure was necessary after funding cuts were imposed at the Premiers' Conference.

Reece Power Station

Tasmania's newest hydro power station, Reece, on the central West Coast came into operation. The $680 million station added about 22 per cent to the overall generating capacity of the State's electricity system. The State's generating capacity has doubled in the past 17 years.

Mini-Budget

The Premier warned union leaders that 800 public servants would lose their jobs if $24 million could not be saved from their annual wages bill. He also announced a wide range of new and increased taxes and charges to become effective immediately.

POPULATION CENSUS 30 JUNE 1986

The 1986 Census counted 436 353 people in Tasmania on census night, an increase of 4.2 per cent on the 1981 count.

Major growth areas in the State were:

Municipality	*% increase*
Portland	31.7
Sorell	29.4
Brighton	23.6
Westbury	19.8
Kingborough	19.3

JUNE STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	8.3
Value of Retail Sales ($m)	108.6
Value of Building Approvals ($m)	30.7
Consumer Price Index (% increase June qtr)	2.1

JULY 1986

Lyell Municipality

The municipalities of Gormanston and Queenstown amalgamated to create the new municipality of Lyell.

North Broken Hill

Tasmania's largest private employer, North Broken Hill, announced that it would have to pay an extra $7.4 million in taxes and charges a year as a result of the State Government's mini-budget. Employment cuts and drastic cutbacks in development programs were predicted as a result.

ALP Conference

The ALP's biennial national conference was held at Wrest Point Casino. It was the first time in 31 years that the conference was held in Hobart. The conference directed the State branch to admit the secretary of the Tasmanian Trades and Labour Council, Mr Paul Lennon, to membership.

Public Service Cut-Backs

The Premier began discussions with public sector union leaders concerning the proposal to reduce Public Service expenditure. Angry public servants began threatening industrial action as a result of Mr Gray's proposal to cut wages.

Heavy Snowfall

Hobart experienced its heaviest snowfall in 65 years. Eight centimetres of snow blanketed the city, greatly disrupting transport and throwing normal city services into disarray.



Richardsons' Meat Industries went into receivership with debts of $17 million.

JULY STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	8.2
Value of Retail Sales ($m)	117.0
Value of Building Approvals ($m)	26.3

AUGUST 1986

Public Service Sackings

The State Government formally put the Public Service sackings dispute before the State Industrial Commission and deferred the sacking of 400 public servants for two weeks.

Mr Gray's preferred option for saving $7 million was to cease payment of the 17.5 per cent annual leave loading to public servants.

The State Industrial Commission imposed a 12-month deferral of the 17.5 per cent leave loading.

Daylight Saving

Cabinet extended daylight saving by three weeks.

US Base

The Premier made direct approaches to the United States Government to secure, for Hobart, the $20 million United States Air Force's Antarctic transit base rumoured to be moved from Christchurch, New Zealand.

Stolen Car Racket

According to a senior Victorian policeman Tasmania is a dumping ground for stolen Victorian cars because of the State's easy registration procedures.

BUILDING APPROVALS INCREASE

There was a marked increase in the number of new dwelling units approved in August 1986. 401 dwelling units were approved, an increase of 59 per cent on July 1986. A significant increase was shown in the number of public sector dwelling units approved. There were only 6 new dwelling unit approvals in this sector during July 1986, compared with 100 approvals for August 1986. The value of all building approved for August 1986 was $29.8 million.

AUGUST STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	8.2
Value of Retail Sales ($m)	116.7
Value of Building Approvals ($m)	29.8

SEPTEMBER 1986

Bass Strait Ferry Plan

Transport Tasmania's TT-Line revealed plans for an ultra-luxurious ferry to replace the *Abel Tasman* on the Bass Strait run. The $100–$150 million 'super-ferry' would carry 1500 passengers, 400 cars and 50 semi-trailers, (double the *Abel Tasman*'s capacity) but will only be about 20 metres longer. A feasibility study, which could take approximately 3 years, would need to be carried out before the proposed vessel would be plying Bass Strait.

Aboriginal Remains

The National Museum of Australia announced a decision to hand over the remains of four Tasmanian aborigines to descendants of the race. The remains include a complete skeleton and three skulls.

TASMANIAN FOOTBALL FINALS

TANFL — Glenorchy defeated Sandy Bay
NTFA — Scottsdale defeated Longford
NWFU — Ulverstone defeated Wynyard

SEPTEMBER STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	8.2
Value of Retail Sales ($m)	118.3
Value of Building Approvals ($m)	61.1
Consumer Price Index (% increase, Sept. qtr)	2.6

OCTOBER 1986

HEC Borrowing Loss

The Hydro-Electric Commission faced a potential $91.9 million loss on its overseas borrowings as a result of the plummeting value of the Australian dollar.

Beaconsfield Gold Mine

A new company was formed to redevelop the Beaconsfield gold mine in Northern Tasmania.

USS Missouri

The warship *USS Missouri* visited Hobart. The French frigate, *FNS Commandant Blaison*, also visited Hobart.

FBT Challenge

Tasmania joined Queensland in a High Court challenge to the Fringe Benefits Tax.

Abalone Farm

Construction began on a $5 million abalone farm, three kilometres south of Swansea. A joint venture between Tasmanian Univalve Pty Ltd and Japanese interests, the farm is the first land-based abalone farm outside Japan and the United States.

National Estate

Quamby Bluff and Jackeys Marsh were listed on the National Estate.

OCTOBER STATISTICS—TASMANIA	
Seasonally Adjusted Series —	
Total Employed Persons ('000)	186.2
Total Unemployed Persons ('000)	18.8
Unemployment Rate (% of labour force)	9.2
Value of Retail Sales ($m)	122.8
Value of Building Approvals ($m)	30.5

NOVEMBER 1986

Tattslotto Winner

A Bothwell shearer won $2.8 million in Tattslotto. He was one of four winners who shared the $11 million jackpot. The jackpot was the largest cash prize in the history of Australian lotteries and the second largest in the world.

Papal Tour

Pope John Paul II visited Hobart and held Mass for approximately 32 000 people at Elwick racecourse.

Marine Scientists Conference

More than 80 marine scientists from around the world met in Hobart for the biennial conference of the (SCOR) Scientific Committee on Oceanic Research.

NOVEMBER STATISTICS—TASMANIA	
Seasonally Adjusted Unemployment Rate (% of labour force)	9.5
Value of Retail Sales ($m)	122.8
Value of Building Approvals ($m)	28.5

DECEMBER 1986

Christmas Pageant

A huge crowd lined Hobart's streets to view a Christmas pageant in which about 1 200 people took part.

Record Wool Price

Japanese wool buyer, Fujii Keori Co. paid 28 000 cents a kilogram for a 101 kilogram bale of extra superfine merino wool at the spring wool sales. The price equalled the record for the world's highest priced bale.

Tassie Devil 2001

International Catamaran's wave-piercing boat, Tassie Devil 2001, was launched.

Lemonthyme Forest

The Federal Government proposed to invoke World Heritage legislation to prevent logging in the Lemonthyme Forest.

Sydney–Hobart Yacht Race

Bob Bell's 80 foot maxi, *Condor*, took out line honours in the Sydney–Hobart yacht classic. The handicap winner was the 36-footer *Ex-Tension*.

1986 Birth Statistics

Tasmania's 1986 birth rate was the lowest since records began in 1860. There were 6 950 births in 1986, 299 less than in 1985. Tasmania's birth rate of 15.6 births per 1 000 population was nevertheless still above the national average of 15.2 births per 1 000 population in 1986.

DECEMBER STATISTICS—TASMANIA	
Seasonally Adjusted Unemployment Rate (% of labour force)	9.5
Value of Retail Sales ($m)	172.5
Value of Building Approvals ($m)	25.2
Consumer Price Index (% increase, December qtr)	2.9

JANUARY 1987

Flash Flooding — Sandy Bay

Thousands of dollars worth of damage was caused by flash flooding in Sandy Bay. Shops, vehicles and homes were damaged in a heavy 30-minute downfall.

Southern Tasmanian Gales

Gale force winds hit Southern Tasmania creating havoc for motorists, turmoil on the Derwent and a string of damage to houses and property. The winds gusted up to 120 kmh and were strong enough to blow a container from a semi-trailer as it travelled over the Tasman Bridge. The strongest winds ever recorded in Hobart were 150 kmh.

OBITUARY

A former Minister of health in the Reece Labor Government and president of the Tasmanian branch of the Alcohol Industry Foundation, Dr Allan Foster, died.

Tasman Bridge Navigational Aids

Plans to house navigational equipment in a special pontoon to be installed near the Tasman Bridge were revealed. The equipment will provide up-to-date information on currents and wind strengths for ships passing under the bridge. A deep keel will be constructed on the pontoon to model the effects of currents on a typical ship using the bridge.

US Antarctic Supply Base

US sources, in Canberra, ended long running speculation that Hobart was to become the next US Antarctic supply base. It was stated that the US did not have plans to move their Antarctic base from Christchurch.

MOTOR VEHICLE REGISTRATIONS DOWN

New motor vehicle registrations for January 1987 (735) were the lowest recorded for any month since January 1968. Motor cycle registrations slumped to their lowest since November 1966 with only 18 cycles registered during the month.

JANUARY STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	9.5
Value of Retail Sales ($m)	116.7
Value of Building Approvals ($m)	21.2

FEBRUARY 1987

Muttonbirding

Almost the entire population of Flinders Island were set to defy a State Government ban on amateur muttonbirding due to come into force in March.

New Home for Herbarium

Work began on the construction of a building to house the Tasmanian Herbarium, the botanical department of the Tasmanian Museum and Art Gallery. The building, of earth-sheltered design will be built on the campus of the University of Tasmania. The herbarium holds a collection of more than 100 000 specimens of Tasmanian plants, some dating back to Captain Cook's third voyage (1777). The collection vaults at the new site will be buried in the hillside to provide maximum protection and temperature control and the roof of the building will be covered with soil, grassed and landscaped. The offices, laboratories and public reception will be open to natural light.

Nella Dan in Hobart

The Antarctic supply ship *Nella Dan* returned to Hobart after being stuck in pack ice for the second year running. The ship arrived 10 days late after being freed from the ice by a Soviet icebreaker. Despite being ice-bound, the *Nella Dan* expedition achieved most of its objectives.

Devonport Laundry

Work began on a $1.5 million laundry at Devonport. When completed it will be the most modern commercial laundry in Australia. Eventually the business plans to employ 30 people, with provision being made to employ handicapped people from Devonport's Devonfield Complex.

OBITUARY

Mr Michael Sharland, who wrote nature notes for *The Mercury* for 60 years under the name of Peregrine, died aged 87. Mr Sharland's dedication to preserving Tasmanian wildlife and scenery began long before conservation was a widely accepted idea. He was a member of the Scenery Preservation Board which was the forerunner to the National Parks and Wildlife Service.

Wynyard Airport

Wynyard Airport's jet-standard runway was opened. More than $6.9 million was spent on the upgrading. The Emu Bay Apex Club organised an air show (Jetport '87) to celebrate the opening.

Japanese Garden Completed

The Japanese Garden at the Royal Tasmanian Botanical Gardens was opened after two and a half years of work. The official opening was attended by 60 delegates from Hobart's Japanese sister city, Yaizu.

FEBRUARY STATISTICS—TASMANIA	
Seasonally Adjusted Unemployment Rate (% of labour force)	9.4
Value of Retail Sales ($m)	112.5
Value of Building Approvals ($m)	32.2

MARCH 1987

Highfield House Restoration

Restoration work on the stables of historic Highfield House at Stanley began.

Senate Seat Vacancy

The State ALP nominated president John Devereux for the casual Senate vacancy left by retiring Senator Don Grimes began. Mr Devereux's strong support for conservation issues led to his eventual rejection by a joint sitting of both Houses of Parliament.

Antarctic Museum

The State Government unveiled plans it hoped would win it approval to construct a proposed National Antarctic Museum against competition from Victoria. The three-stage $9.7 million 'living museum' in the heart of the city's most historic district would rely on Federal finance to go ahead.

Milk Dispute

A strike at Devonport's Tasmaid plant threatened to stop milk supplies from getting to Launceston and much of Northern Tasmania.

MARCH STATISTICS—TASMANIA	
Seasonally Adjusted Unemployment Rate (% of labour force)	9.8
Value of Retail Sales ($m)	118.7
Value of Building Approvals ($m)	31.8
Consumer Price Index (% increase March qtr)	2.1

APRIL 1987

Supernova in Southern Hemisphere

The Physics Department at the University of Tasmania took delivery of receiving equipment to help track the supernova appearing in the Southern Hemisphere.

Mansell in Libya

Tasmanian Aboriginal activist, Mr Michael Mansell, flew to Libya as part of a six-man Australian delegation to ask Libyan President, Colonel Gaddafi, for resources and money to internationally publicise the plight of Aboriginals in the bicentenary year.

Honorary Doctorate

Mr Bob Green, curator of zoology at the Queen Victoria Museum and Art Gallery was made an Honorary Doctor of Science. The award, made by the University of Tasmania, was in recognition of Dr Green's contribution to the study of Tasmanian natural history.

Coolstore Fire

About 800 tonnes of hops owned by Australian Hop Marketers Pty Ltd and worth between $3.5 million and $4 million were burned in a coolstore at South Hobart. Apart from hops, 300 tonnes of frozen fish, poultry, fruit and fruit-juice concentrates were also destroyed.

Sea Rescue

Five people were rescued from seas on the notorious St Helens barway.

Devonport Fire

The historic arts block at the Devonport High School was destroyed by fire. Built around the 1900's the arts block was the last of the original high school structures remaining.

APRIL STATISTICS—TASMANIA	
Seasonally Adjusted Unemployment Rate (% of labour force)	9.1
Value of Retail Sales ($m)	127.6
Value of Building Approvals ($m)	33.9

OBITUARY

Dean George Cullen, aged 90, died in Launceston. Dean Cullen was a Catholic priest for 63 years and served in many areas of the State. He was born at Ballaghadereen, on Ireland's west coast.

MAY 1987

Purity Franchising

The Purity supermarket chain considered franchising a supermarket in Launceston to pressure the State Government to change its shop trading laws. The move was considered after the successful opening of the Sandy Bay Purity supermarket which was franchised to the former manager of the store.

Lloyd Rees Exhibition

Tasmanian artist, Lloyd Rees, was invited to exhibit at Printemps, a big department store in Paris, as the focus of an Australian trade fair.

OBITUARY

The Governor of Tasmania, Sir James Plimsoll, died at Government House, aged 70. Sir James joined the Australian diplomatic service in 1948, beginning an impressive ambassadorial career. He served as Australian High Commissioner to India and Ambassador to Nepal (1963–65), as Ambassador to the USSR and Mongolia (1974–77), to Belgium, Luxembourg, and the European Economic Community (1977–80), and more recently as ambassador to Japan in 1981–82. On 30 September 1982 he was officially sworn in as Governor of Tasmania. A State funeral was held in Hobart.

Sale of Swan Island

Swan Island, situated about 3 km off the north-eastern tip of Tasmania, was offered for sale. The 200 hectare island was expected to sell for between $200 000 and $250 000.

MAY STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	10.0
Value of Retail Sales ($m)	128.1
Value of Building Approvals ($m)	31.6

JUNE 1987

New MTT Bus

The Metropolitan Transport Trust unveiled a new bus designed especially for aged or disabled passengers. The 'kneeling' step at the front of the bus may be lowered on request.

RSPCA Report

A report prepared by the RSPCA for the Federal National Parks and Wildlife Service slammed the methods used to kill wallabies in the State. The report recommended urgent changes to be made in the methods used to kill wallabies and that Tasmania's export licence for wallaby products should be suspended.

Inspection Head Wharf Collision

Three fishermen had to jump for their lives as a 21 000-tonne cargo ship threatened to crush their boat at Inspection Head Wharf. The men jumped seconds before the giant Panamanian vessel, *Southern Angel*, hit a $300 000 neighbouring boat, *Ole Madsen*.

Record Low Maximum Temperature

Launceston Airport recorded a maximum of only 4 degrees, the lowest June maximum ever recorded. Temperatures reached only 7 deg. in Launceston, 8 in Devonport and 11 in Burnie.

ANM Modernisation

A $22 million thermo-mechanical pine pulp mill, part of ANM's $75 million three-year modernisation programme, was opened at the Boyer plant.

JUNE STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	10.2
Value of Retail Sales ($m)	125.1
Value of Building Approvals ($m)	29.6
Consumer Price Index (% increase June qtr)	1.5

JULY 1987

Sea Fisheries Sacking

The Minister for Sea Fisheries, Mr Ray Groom, alleged that the sacking of the head of the Department of Sea Fisheries, Dr Marc Wilson, resulted from a $1.5 million sale of government owned shares, which he had no approval to initiate. Mr Groom stated that Dr Wilson had also personally owned 1 000 shares in Tasmanian Atlantic Salmon Ltd and he considered it improper for the head of the Sea Fisheries department to have a pecuniary interest in the fishing industry.

Federal Government Election

Mr Duncan Kerr won the seat of Denison from sitting member, Michael Hodgman. It was the first time in 12 years that Labor had won in Denison. Sitting Liberals Max Burr, Bruce Goodluck, Warwick Smith and Chris Miles were re-elected.

Mt Wellington Observation Deck

Plans for an observation deck on the pinnacle of Mt Wellington — which will include an 11-metre by 5.5 metre viewing window, were unveiled.

OBITUARY

A former Liberal MHA, Mr Peter Bensen Walker, died in Melbourne aged 65. Mr Walker was a member of the Tasmanian Parliament between 1982 and 1986.

Davis Quits Liberal Party

State Government back-bencher, Mr Geoff Davis, MHA, quit the Liberal Party over the Government's decision to base the chief executive of the proposed State Bank in Launceston.

JULY STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	9.7
Value of Retail Sales ($m)	128.7
Value of Building Approvals ($m)	37.5

AUGUST 1987

Tasmania Bank Chairman

The former chairman of the Savings Bank of Tasmania, Mr Robert Mather, was appointed chairman of the new Tasmania Bank. The Managing Director of ENT Limited, Mr David McQuestin was appointed his deputy.

Call for Police Commissioner's Resignation

North-west and West Coast rank-and-file police officers demanded the resignation of the Police Commissioner, Mr Max Robinson, over his handling of the Galloway affair. Mr Galloway, a policeman for 21 years and a senior sergeant, was dismissed from the force after being charged over the alleged falsification of a breathalyser reading. The charges were subsequently dropped and Mr Galloway was reinstated

Credit Union Fraud

Trading was suspended at the Campus Credit Union due to evidence of fraud and misappropriation of funds. The Credit Union had about 1 000 members, mostly University of Tasmania staff and their families and assets of approximately $8 million.

Art Gallery Proposal

A proposal for a new Hobart art gallery, the second in 18 months, was unveiled. Costing about $4 million the plan involved splitting the art gallery from the museum and locating it in lower Davey Street between the Royal Engineers building and the Cenotaph.

Federal Liberal Frontbench

Mr Warwick Smith, MHR (Bass) and Mr Chris Miles, MHR (Braddon) were included in the Federal Liberal frontbench; Mr Smith as Opposition spokesman for Science and Energy and Mr Miles as Aboriginal Affairs spokesman.

Workshop Fire

Fire partially destroyed Walkabout Industries bottling workshop. Damage was estimated at about $400 000.

OBITUARY

Mr George Francis Davies, the last member of the Davies Brothers Limited publishing dynasty died aged 76. Mr Davies was a great-grandson of Mr John Davies, who founded The Hobart *Mercury* in 1854 and was the last member of the family to be associated with the company as a director.

AUGUST STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	9.3
Value of Retail Sales ($m)	121.1
Value of Building Approvals ($m)	25.3

SEPTEMBER 1987

OBITUARY

Sir Alfred White, former Tasmanian Labor Minister and Agent General in London, died aged 85. Sir Alfred retired from Parliament in 1959 and became Agent-General in London for a record 12 years. He was responsible for introducing the 'roll-on-roll-off' shipping system to Tasmania.

State Airline Proposal

The State Government began investigating the possibility of buying its own passenger aircraft and operating under a State Government flag.

Ferry Operating Surplus

The Bass Strait passenger ferry *Abel Tasman* recorded a $2.7 million operating surplus in its second year of operation.

Logging Ban

A High Court decision banned logging in the Lemonthyme and Southern Forests of Tasmania.

TASMANIAN FOOTBALL FINALS

TFL — North Hobart defeated Glenorchy
NTFL — Ulverstone defeated East Devonport

Death of Halwes

Halwes, arguably the best horse of any breed produced in Tasmania, died aged 28. Halwes dominated the local racing scene in the 1960s and was unrivalled as the best pacer in Australasia, winning 53 races from 68 starts.

New Governor

General Sir Phillip Bennett was appointed Tasmania's new Governor following the death of Sir James Plimsoll.

Retirement of Geoff Davis

Former Cabinet Minister, Geoff Davis, ended his political career two months after crossing the House of Assembly floor in protest at Government interference in the State bank issue.

Record High Temperature

A record temperature for September (31 degrees) was recorded in Hobart. The previous September record of 28.2 degrees was recorded in 1973.

Retirement of Police Commissioner

Tasmania's Commissioner of Police, Mr Max Robinson announced his retirement to take effect from 31 January 1988.

SEPTEMBER STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	9.3
Value of Retail Sales ($m)	126.4
Value of Building Approvals ($m)	46.7
Consumer Price Index (% increase, Sept. qtr)	1.8

OCTOBER 1987

New Liberal MP

Mr John Barker was sworn into State parliament as the new Liberal member for Denison after a recount, replacing Mr Geoff Davis who had resigned.

Tasmania's Weather

Tasmania's prolonged dry weather broke many records with six centres recording their lowest cumulative rainfall ever during the eight months from February to September inclusive. The centres were Burnie, Launceston Airport, Scottsdale, Fingal, Swansea and Campbell Town.

Logging Inquiry

The State Government appeared before the Helsham logging inquiry. A last minute decision not to boycott the inquiry meant that the Government was free to argue that logging in the Lemonthyme and southern forests could go ahead in the summer because no World Heritage values were involved.

Port Arthur Admission Fee

A general admission fee of $5 for adults was implemented at the historic site of Port Arthur.

Aboriginal Art

Aboriginal hand stencils dating back to the last Ice Age were discovered in a cave in the Cracroft Valley in Southern Tasmania. Thought to be the biggest find of aboriginal hand paintings discovered in Tasmania, they were found by archaeologists hired by Australian Newsprint Mills to investigate the area as part of its case to the Helsham Commission of Inquiry into the World Heritage value of Tasmania's Lemonthyme and southern forests.

Record High Temperature

A record temperature for October (34.6 degrees) was recorded in Hobart. The previous October record of 33.14 degrees was recorded in 1914.

OCTOBER STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	8.6
Value of Retail Sales ($m)	135.0
Value of Building Approvals ($m)	32.2

NOVEMBER 1987

Sheraton Hotel

The Hobart Sheraton Hotel was officially opened by the Premier. Although the 234 room Sheraton opened its doors for business in August the hotel was not considered fully operational until the official opening.

Mt Wellington Development

A proposed $35 million development for Mt Wellington met with fierce public opposition. The outcry came just 24 hours after the State Government revealed it had approved in principle a hotel, restaurant, cable car and artificial snow fields on the mountain. The final decision on the proposal was left with the Hobart City Council.

Development of the Hobart Rivulet

Hobart's Lord Mayor, Ald Doone Kennedy planted a tree as the ceremonial start to the $87 000 first stage development of a park which will eventually stretch the length of Hobart's Rivulet from Molle Street to Cascade Gardens in South Hobart. The work will include a pathway, lighting, barbecue and rest areas, and the planting of native and exotic ornamental plants.

Nella Dan

The Australian Antarctic ship, *Nella Dan*, was freed from pack ice after its third entrapment in as many seasons.

Japanese Yen for Tasmania

Plans for a $100 million holiday resort and housing subdivision at Seven Mile Beach were revealed. The State Government was looking to Japan for the finance after a trade delegation held discussions in Tokyo with possible investors. The plans include a 200 room hotel, a 200 berth marina, 900 residential blocks each selling for about $40 000, plus a variety of condominiums and units, a shopping centre, nine hole golf course, indoor swimming pool, health centre and sports centre.

Tasmania Day

Thousands of Tasmanians across the State joined the festivities to celebrate Tasmania Day. Wynyard artist Christine Hiller was named Tasmanian of the Year.

Comalco Upgrading

Aluminium producers, Comalco, announced a $70 million two year upgrading project at Bell Bay. The project will employ up to 200 people at the peak of construction.

Lady Nelson Launch

Tasmania's Bicentenary Tall Ship, the *Lady Nelson* was launched. The original Lady Nelson was the first ship to sail west through Bass Strait, in 1800, and the vessel from which Hobart was established in 1803. The new ship, a full sized replica was intended to provide sail training for young Tasmanians.

NOVEMBER STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	9.1
Value of Retail Sales ($m)	133.5
Value of Building Approvals ($m)	25.0

DECEMBER 1987

Helsham Inquiry

The Helsham Inquiry rejected conservation arguments that logging should be banned in four small forest areas. As a result logging is permitted in the Lemonthyme Forest in the north and in the southern forests.

Crawford Inquiry

Tasmanian Police sergeant, Graham Galloway was again dismissed from the force after the Crawford Inquiry found that he and former traffic constable, Carsten Bauermeister had been involved in the fabrication of a breathalyser reading on 17 March.

Court Challenge to Inquiry

The Australian Conservation Foundation prepared to take the Federal Government's Helsham logging inquiry in Tasmania to court. The Foundation seeks to overturn the decision by the Helsham Commission of Inquiry to free four forest areas in the Lemonthyme — southern forests from High Court protection.

Shop Trading

Legislation hurried through Parliament before it rose for 1987, enabled shops in the central business districts of Hobart and Launceston to trade seven days a week over the holiday period.

HEC Charges

The Hydro-Electric Commission announced that power charges for ordinary consumers would rise by 4.8 per cent from 1 January.

Tamar River Clean-up

Department of Environment figures revealed pollution levels in the Tamar and North Esk Rivers posed a huge problem to Launceston. As a result the Launceston City Council announced a clean-up of the rivers and had allocated $2.5 million to upgrade sewers and treatment plants. The State Government also allocated $8.4 million over the next four years.

Tasmanian Gun Laws

The national Gun Summit broke down after Tasmania and Queensland refused to support uniform gun laws.

Latrobe Carnival

Michael Grenda broke a 53 year record when he won the 16 km A Grade scratch race at the Latrobe Carnival.

Nella Dan

Australia's Antarctic supply ship *Nella Dan*, a veteran of more than 90 voyages to the region, sank off Macquarie Island. The ship sank as it was under tow to be scuttled after running aground at Macquarie Island earlier in the month.

Yacht Races

Victorian sloop *Flying Colours* took line honours for the third year running in the Melbourne–Hobart yacht race. Super-maxi, *Sovereign*, became the first Australian yacht to win the line honours–handicap double in the Sydney–Hobart blue-water classic.

DECEMBER STATISTICS—TASMANIA

Seasonally Adjusted Unemployment Rate (% of labour force)	8.8
Value of Retail Sales ($m)	192.9
Value of Building Approvals ($m)	34.7

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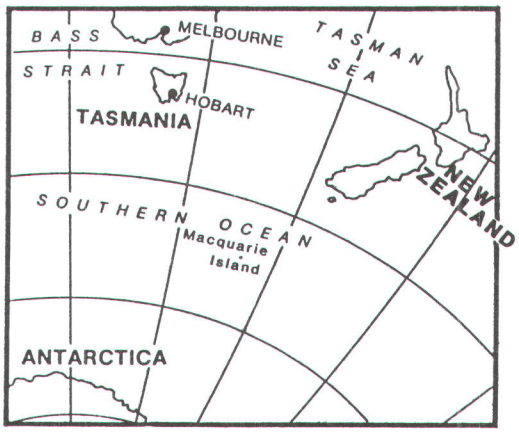
Chapter 2

PHYSICAL ENVIRONMENT

The State of Tasmania is a group of islands lying south of the south-east corner of the Australian mainland. Roughly shield-shaped with the greatest breadth in the north, the Tasmanian mainland extends from 40° 38′ to 43° 39′ south latitude and from 144° 36′ to 148° 23′ east longitude. The coastline is bounded by the Southern Ocean on the south and west and the Tasman Sea on the east, while the approximately 240 kilometres wide Bass Strait separates the island from the Australian mainland. Macquarie Island, a part of the State, is situated at 54° 38′ south latitude, 158° 53′ east longitude in the Southern Ocean.

2.1 AREA OF ISLANDS

Island	*Area (square kilometres)*
Badger	10
Bruny	362
Cape Barren	445
Clarke	113
Flinders	1 374
Hunter	74
King	1 099
Macquarie	123
Maria	101
Prime Seal	10
Robbins	101
Schouten	34
Three Hummock	70
Vansittart	6
Total islands	3 922
Mainland Tasmania	64 409
Total Tasmania	68 331



The area of the whole State, including the lesser islands, is 68 331 square kilometres or about 0.9 per cent of the total area of Australia (7 686 900 square kilometres); it is just under one-third the size of Victoria, the smallest mainland State, and is less than half the size of England and Wales.

Mainland Australia, extending north of the Tropic of Capricorn, and with much of its area in the zone of the sub-tropical anti-cyclones, is basically a warm, dry continent. Tasmania is in the temperate zone and practically the whole island is well watered with no marked seasonal concentration; there are no deserts or drought areas as found extensively on the adjacent mainland. Being south of latitude 40°, it is on the edge of the wind belt commonly known as the 'Roaring Forties' and, with South America the nearest land mass to the west, Tasmania's weather is subject at times to strong winds and heavy rain about the south and west coastal areas. Its insular position provides protection against temperature extremes — the variation between summer and winter mean temperatures in coastal towns rarely exceeds 8° Celsius.

Apart from the Great Dividing Range in the east, continental Australia is predominantly a land of low plateaux and plains with little relief. In contrast, Tasmania could legitimately be called the island of mountains, since it has the largest proportion of high country to its total area, compared with the other States.

2.1 CLIMATE

(The following section was prepared by the Bureau of Meteorology)

Since Tasmania lies between 40° and 43½° south of the Equator and is an island with no point more than 115 kilometres from the sea, its climate is classified as temperate maritime. On the coast the daily temperature range averages about 8° Celsius, rising to about 12° Celsius further inland, indicating a slight continental effect.

The combination of mountainous terrain in the western half of the State and prevailing westerly winds produces a marked west-east variation of climate, and especially of rainfall.

Summers are mild and characterised by greatly lengthened days. The sun reaches a maximum elevation of 70–73° in mid-summer, giving around 15 hours of daylight. In mid-winter, the sun's elevation does not exceed 20–23°, and the shortest day consists of about nine hours of daylight.

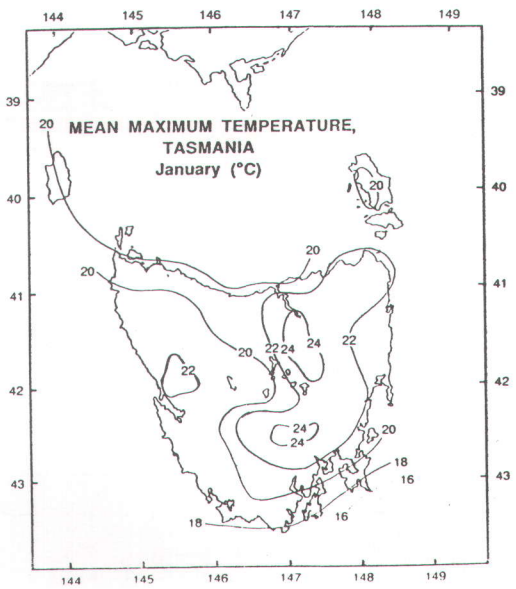
In winter, westerly winds reach their greatest strength and persistence, causing a distinct maximum in rainfall distribution in the west and north-west. In the east and south-east, rainfall is more evenly distributed throughout the year. In comparison with those areas of Europe and North America which are at similar latitudes, Tasmania enjoys a very temperate climate. This is due to the stabilizing effect of surrounding oceans whose temperatures change only 3–5° throughout the year. The higher proportion of ocean to land area confers a similar benefit on the Southern Hemisphere as a whole.

2.1.1 Winds

The prevailing winds over most of the Island are north-west to south-west, with greatest strength and persistence during late winter. Speed and direction vary with the eastward passage of high and low pressure systems. In the summer months, when westerlies are weak, afternoon sea-breezes become the predominant wind in coastal areas. Occasional periods of north-east to south-east winds occur. The highest average wind speeds are associated with extensive deep depressions over ocean areas south of Tasmania.

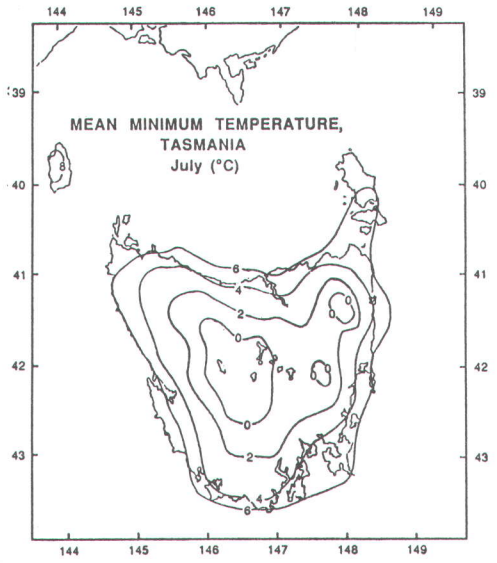
2.1.2 Temperature

Tasmania only occasionally experiences the extremes of temperature common to the other States. High temperatures recorded in the east and south-east of Tasmania generally occur on the last day of a warm spell during which a dry air mass of mainland origin is advected over the State from a direction between north and north-west. Some cooling in the lower air layers over the waters of Bass Strait prevents the northern coast from reaching the higher temperatures that are experienced in the south under these conditions. The highest temperatures ever recorded in Tasmania are 40.8°C at Bushy Park in December 1945 and at Hobart in January 1976. The lowest temperature recorded was -13.0°C at Shannon, Butlers Gorge and Tarraleah in June 1983.



2.2 TEMPERATURES AT SELECTED STATIONS, TASMANIA, 1987 (°C)

Station	Summer (Dec–Feb)		Autumn (Mar–May)		Winter (June–Aug)		Spring (Sept–Nov)	
	Mean maximum	Mean minimum	Mean maximum	Mean minimum	Mean maximum	Mean minimum	Mean maximum	Mean minimum
Hobart	21.1	11.3	17.8	8.8	13.0	4.7	18.1	9.0
Launceston Airport	21.4	8.8	17.6	6.5	11.4	2.8	17.7	6.0
Devonport	19.9	10.8	17.3	8.4	12.7	4.6	16.8	7.6
St Helens	22.4	10.6	19.9	7.3	n.a.	n.a.	19.8	7.4
Queenstown	19.1	7.2	16.4	5.5	12.1	2.2	n.a.	n.a.



The recorded extremes of temperature for Hobart are 40.8°C in January 1976 and -2.8°C in June 1972 and July 1981. Readings above 38°C or below -1°C are rare, the mean maximum temperature in summer being 21°C and the mean minimum in winter, 4.8°C.

The average number of hours of sunshine a year ranges from about 2 500 hours in the northern Midlands to less than 1 750 hours on the West Coast and western highlands, this area having the least amount of sunshine in Australia. Hobart averages 2 100 hours per year and Launceston around 2 400.

In January, daily averages of sunshine range from nine hours per day between the Midlands and Launceston to six hours per day on the West and South Coasts. In mid-winter, average daily sunshine is down to a maximum of three hours

State Sizzles in Record Heat

Tasmania basked in unseasonably high temperatures on the 27th of September, 1987, breaking temperature records for the month in 16 locations throughout the State.

Beaches and popular picnic spots became havens for hundreds of Hobart residents who basked in the State's new record September temperature of 31 degrees.

Bicheno, on Tasmania's East Coast, also recorded 31 degrees and the other East Coast centres of St. Helens and Swansea both recorded new record temperatures. Launceston and Devonport also recorded new monthly maxima with 25 and 21 degrees respectively.

on the East Coast and to considerably less on the West Coast and highlands.

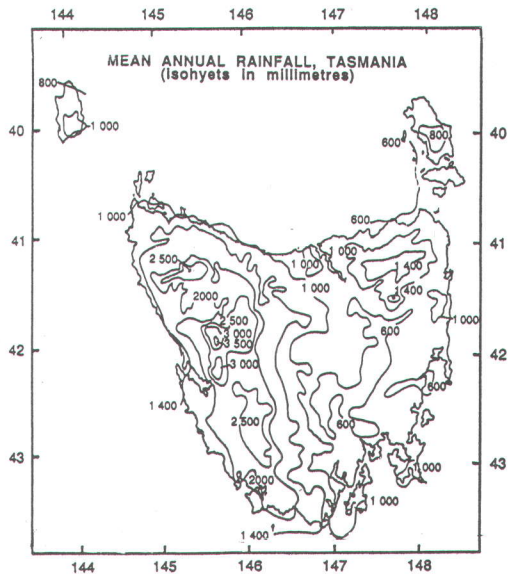
2.1.3 Rainfall

As Tasmania's position is on the northern edge of the 'Roaring Forties' (a westerly air-stream), its exposure to this stream and the mountainous nature of the terrain are the controlling influences on the amount, distribution and reliability of the State's rainfall.

In the west, average annual rainfall ranges from about 1 500 mm on the coast to 3 500 mm at Lake Margaret; in the north-east, from 500 mm on the coast to 1 300 on the highlands; while rainfall in the north-west ranges from 1 000 mm near the coast to 1 600 mm in the higher inland areas.

Extreme three to five-day rainfalls occur most often on the West Coast in late June when the westerlies are increasing in strength and persistence and the sea temperature is well above the land temperature. In the north, short periods of extreme precipitation occur when wind flow is sustained for up to two days from the north-east, usually from late autumn to spring. The high moisture content of such streams from over the relatively warm waters of the Tasman Sea results in heavier, if less prolonged, rainfall than is produced by the westerly streams.

There is a strong gradation in rainfall from west to east, because of topography, with a distinct rain shadow east of the Central Plateau. Parts of the Midlands average less than 500 mm per year. Totals in the east and south-east are higher (over 800 mm on exposed slopes).



Rainfall is least reliable in the east, south-east, Midlands and Derwent Valley. Highest rainfall in these areas tends to occur in autumn and spring, under the influence of small cyclonic depressions off the East Coast.

2.3 ANNUAL RAINFALL, TASMANIA (millimetres)

Station	*1985*	*1986*	*1987*	*Long-term average (a)*
Avoca	596	636	434	561
Beaconsfield	896	968	619	952
Burnie	856	968	672	1003
Campbell Town	590	573	392	547
Cressy	n.a.	613	n.a.	642
Franklin	740	858	773	897
Hobart (Weather Bureau)	716	654	492	628
Hobart (Airport)	625	545	410	519
Kettering	n.a.	1120	n.a.	890
Launceston (Airport)	688	626	480	702
Lilydale	n.a.	954	n.a.	975
Lymington	n.a.	867	n.a.	791
Maydena	n.a.	1239	1123	1224
New Norfolk	n.a.	n.a.	n.a.	552
Oatlands	656	574	279	563
Queenstown	2041	2801	2652	2521
Ringarooma	1218	1237	887	1231
Savage River	n.a.	n.a.	n.a.	1957
Smithton	952	1134	813	1106
St Helens	869	785	541	781
St Marys	1137	1092	681	1032
Swansea	685	718	377	614
Ulverstone	n.a.	890	689	961

(a) Number of years of record used to calculate the long-term average varies from station to station.

2.1.4 Snow, Hail and Thunderstorms

Snow and hail can be experienced over the highlands at any time of the year. Heaviest snowfalls occur, as a rule, in late winter and spring, and less frequently in June and July. Extensive snow below 150 metres occurs, on the average, less than once every two years, associated with an unusually vigorous outbreak of cold air from Antarctic regions. There is no permanent snowline, but patches of snow often remain on the highest peaks until December.

Heaviest Snowfall in 65 years

On 25 July 1986 Hobart was buried in eight centimetres of snow, the biggest snowfall since 13 centimetres fell in the city on 31 July 1921.

The freezing conditions were caused by an Antarctic airstream squeezing between an intense high pressure system in the Great Australian Bight and an intense low pressure system in the Tasman Sea. The southerly airstream became colder as it moved directly over Tasmania between the two weather systems.

As the temperature dropped to zero degrees commuters were left stranded and normal city services were either delayed or abandoned for the day.

Hobart Airport was closed for the morning, no mail deliveries took place, many schools were closed and businesses reported a 50 per cent downturn in trade.

The snow was a boon to the trans Derwent Ferry business which increased its river crossings from seven to 15, due to the havoc created on the roads.

Hail is most likely in spring, though possible in any month. Hail storms are a big risk to fruit crops in the Huon Valley and on the Tasman Peninsula, and sometimes cause extensive damage.

Thunderstorms are most common in the west and about the North Coast and are usually associated with the lifting of warm moist air by a cold front. Thunderstorms occur mainly in the summer months. Hobart and Launceston average five to seven storms per year, and the north and north-west, 10 to 15. The Central Plateau and north-eastern highlands report, on average, about five storms per year, while the Midlands, as gauged by Oatlands, has less than three.

2.4 CAPITAL CITIES CLIMATIC DATA

	Sydney	*Melbourne*	*Brisbane*	*Perth*	*Adelaide*	*Hobart*	*Darwin*	*Canberra*
Temperature (°C) —								
Mean daily maximum	21.5	19.9	25.4	23.3	22.0	**16.8**	31.9	19.4
Mean daily minimum	13.6	9.9	15.7	13.2	11.9	**8.2**	23.1	6.3
Extreme maximum	45.3	45.6	43.2	44.7	47.6	**40.8**	40.5	42.2
Extreme minimum	2.1	-2.8	2.3	1.2	0.0	**-2.8**	10.4	-10.0
Mean daily hours of sunshine	6.7	5.7	7.5	7.9	6.9	**5.8**	8.5	7.2
Rainfall —								
Mean annual (mm)	1215	661	1157	879	531	**626**	1536	639
Mean annual days of rain	148	143	123	120	120	**160**	97	110
Wind — Average (km/hr)	11.6	12.3	10.8	15.6	12.5	**11.7**	9.2	5.8

2.1.5 Floods

In Tasmania the river system most affected by flooding is the South Esk. The Esk catchment includes most of the north-eastern highlands, where annual rainfall averages about 1 300 mm, and part of the Western Tiers where run-off can be rapid. As many rivers in the South Esk system flow through flat country, flooding can be widespread and disruptive.

Flooding of the Derwent River system can be extensive but is less frequent than in the South Esk. The most severe flood on record in the Derwent occurred in April 1960 with the peak discharge flow recorded as 3 400 cumecs (cubic metres per second) at Macquarie Plains. However, it is most unlikely that flooding of this severity will again occur on the Derwent due to the completion of the four dams across the River since 1960 by the Hydro-Electric Commission.

Flooding of rivers in the west and south of the State can be of greater frequency than in the Derwent and Esk systems but because of mountainous terrain and lack of population these pass mostly unnoticed. Similarly, the short, fast-flowing rivers of the East Coast flood and fall rapidly, but can cause damage and disruption of road systems.

In the north and north-west of Tasmania many rivers have their catchments along the northern edge of the Central Plateau and can flood quickly.

2.1.6 Hobart's Climate

Hobart is not the wettest Australian capital city; in fact it has the lowest mean annual rainfall of all capitals except Adelaide. But it is the coldest.

Temperatures: Mean maximum temperature exceeds 21°C in January and February. On average there are two or three days per year with maximum temperatures greater than 32°C. Minimum temperatures below -1°C are rare.

Rainfall: There is a strong gradient of rainfall to the immediate west of Hobart caused by the bulk of Mt Wellington. On the south-eastern slopes of the mountain the annual rainfall reaches 1 400 mm (at The Springs and The Gap) while at Fern Tree the annual average is 1 140 mm. The rainfall decreases to about 600 mm in the city area, the annual average being 626 mm at the Regional Office of the Bureau of Meteorology. Some eastern shore suburbs receive as little as 500 mm of rain per annum.

Monthly totals are fairly uniform. The wettest 12 months on record at the Bureau's Hobart Office yielded 1 104 mm (to December 1916) and the driest, 320 mm (to November 1943).

Fog: Fogs occur in the city about six times per year, in the cooler months, but are more frequent over and near the Derwent River, down which they are often carried on a light north-west wind. Fog frequency is far less than that for either Launceston or Melbourne.

Wind: The main wind direction is north-west, induced by the orientation of the Derwent Valley. Next in importance is the sea-breeze (from south or south-east) during summer months. The strongest wind gust experienced in Hobart was 150 km/hr recorded during a storm in September 1965.

2.5 HOBART CLIMATIC DATA, 1987

Month	*Shade temperature*				*Mean daily hours of sunshine (a)*	*Rainfall*	
	Mean maxima (a)	*Mean minima (a)*	*Extremes (b)*			*1987*	*Long-term average (a)*
			Maximum	*Minimum*			
	°C	°C	°C	°C	hours	mm	mm
January	21.5	11.7	40.8	4.5	7.9	55	47
February	21.6	11.9	40.2	3.4	7.0	25	40
March	20.0	10.7	37.3	1.8	6.3	39	48
April	17.1	8.8	30.6	0.6	5.1	24	53
May	14.3	6.8	25.5	-1.6	4.2	72	49
June	11.8	5.1	20.6	-2.8	3.9	25	57
July	11.5	4.4	21.0	-2.8	4.3	39	53
August	12.9	5.1	24.5	-1.8	5.0	27	52
September	14.9	6.3	31.0	-0.6	5.8	41	53
October	16.9	7.6	34.6	0.0	6.3	35	63
November	18.5	9.1	36.8	1.6	7.0	57	56
December	20.2	10.6	40.7	3.3	7.3	53	57
Annual	16.2	8.2	40.8	-2.8	5.8	492	626

(a) Long-term average. *(b)* Specific extreme temperatures since records kept.

Snow and Hail: Snow below 300 metres occurs, on the average, less than once per year. Falls lying in the centre of the city, almost at sea level, have occasionally been recorded. Snow generally lies on Mt Wellington during winter and early spring months, but it is rare between November and March. Hail occurs about four times a year, mainly between September and November.

Frost: The average annual frequency of days of frost is 28, mostly from June to August. Cold air drainage is found in the hilly suburbs and frosts are common on the valley floors.

Sunshine and Cloud: No marked seasonal or diurnal variation of cloud amount occurs. However, there is a clear-cut seasonal variation in monthly average hours of sunshine with variations of 235 hours in January to 112 hours in June.

2.2 PHYSIOGRAPHY

Tasmania, a mere 296 kilometres from north to south and 315 kilometres from east to west, has a wide variety of mountains, plateaux and plains, of rivers, lakes, and tarns, of forest, moorland and grassland, of towns, farms and uninhabited (and virtually unexplored) country.

2.1.7 Monthly Weather Review 1987

January

Average monthly maximum and minimum temperatures were below normal in all areas except the East Coast. Most districts, apart from the southeast, received rainfall well above average, with some localities in the western half receiving two or three times their monthly average.

February

Although average maximum temperatures were close to or only slightly below normal, average minimum temperatures were generally one or two degrees below normal throughout the State. Rainfall was below average in all districts except the Derwent Valley, Central Plateau and West Coast.

March

March was characterised by a succession of rapidly moving cold fronts which produced below normal temperatures and, on two occasions, snow in highland areas. Below average rainfall in the eastern half indicated the dominance of the "westerlies".

April

Cold fronts were less frequent and less active during April. Temperatures were above average with new record mean maximum temperatures set at several locations. Rainfall totals were below average with some locations recording their lowest April totals on record.

May

During the first half of May Tasmania experienced some lengthy fine weather caused by a very intense high pressure system. Two particularly large and complex low pressure systems brought storms and snowfalls during the latter part of the month. Temperatures were relatively mild and most districts registered above average rainfall.

June

June was a relatively dry month with the State receiving only 32 per cent of its average monthly rainfall. Temperatures were close to average.

July

Near normal temperatures were experienced during the month. The persistence of anticyclones in higher latitudes than usual and, as a consequence, the lack of "westerlies" and active rain bearing depressions resulted in a significant rainfall deficiency during July.

August

Below average rainfall registrations continued during August. Temperatures were close to normal.

September

The month of September was characterised by above average rainfall and near normal temperatures in the south-western half of the State, while in the remainder higher temperatures and rainfall below or very much below average were recorded. On the 27th new record maximum temperatures were recorded at 16 locations.

October

Most of Tasmania received below normal October rainfall. On the last day of the month new monthly maximum temperature records were established at several locations, but monthly average temperatures were close to normal.

November

Temperatures and rainfall were above average throughout the State.

December

Apart from the Bass Strait islands, rainfall was below average during December. Temperatures were near normal.

The temperate maritime climate partly explains Tasmania being called the most English of all States but other factors operate to heighten the comparison — the pattern of agricultural settlement with orchards, hedges and hopfields; the lake country; the early freestone architecture still common in the east and south-east and the roadsides and villages dotted with oaks, elms and poplars.

2.2.1 Mountains, Lakes and Rivers

With six mountains exceeding 1 500 metres, 28 above 1 220 and a substantial part of the Central Plateau above 900 metres, Tasmania is truly an island of mountains. The tallest is Mt Ossa (1 617 metres) located with a group of mountains, including Cradle Mountain, to the north-east of Queenstown and west of the highland lake country on the Central Plateau containing Lake St Clair, Australia's deepest natural freshwater lake.

2.6 MOUNTAINS AND LAKES

Mountains	*Height (metres)*
Mt Ossa	1 617
Legges Tor	1 573
Barn Bluff	1 559
Mt Pelion West	1 554
Cradle Mountain	1 545
Stacks Bluff	1 527
Mt Gould	1 491
Mt Jerusalem	1 491
Mt Olympus	1 447
Frenchmans Cap	1 443
Mt Ironstone	1 443

Lakes	*Area (square kilometres)*
Lake Gordon *(a)*	272
Lake Pedder *(b)*	241
Great Lake *(c)*	170
Arthurs Lake *(c)*	64
Lake Sorell *(c)*	52
Lake King William *(a)*	41
Lake Echo *(c)*	41
Lake Mackintosh *(a)*	29
Lake St Clair *(c)*	28
Lake Pieman *(a)*	22
Lake Rowallan *(a)*	9
Lake Rosebery *(a)*	7
Lake Barrington *(a)*	7
Lake Cethana *(a)*	4
Lake Murchison *(a)*	4

(a) Man-made.
(b) Man-made — inundated the much smaller natural Lake Pedder.
(c) Natural lake enlarged by dam(s).

Although the rivers are short, Tasmania is virtually criss-crossed by a network of rivers and lake systems. In the south, the Derwent flows from the Central Highlands past Hobart, providing one of the world's best harbours, to the sea at Storm Bay. The Huon River takes the waters of the south-west from the Gordon and Franklin Rivers at Lake Pedder. The State's longest river is the South Esk in the north flowing from the north-east to join the North Esk at Launceston to create the Tamar. Other rivers include the Mersey, Forth and Leven flowing to the North Coast and the Pieman and Arthur rivers on the West Coast.

2.7 RIVERS

Rivers	*Length (kilometres)*
South Esk	201
Gordon	185
Derwent	182
Huon	170
Mersey	146
Franklin	118
Arthur	113
Pieman	100
North Esk	82

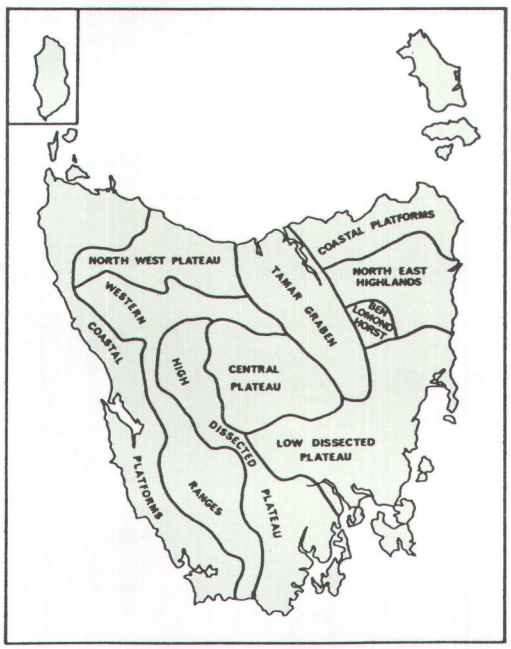


2.2.2 Physiographic Regions

Central Plateau: The main feature is a relatively undissected, dolerite-capped plateau sloping generally south-eastward from an average level of 1 065 metres in the north to 610 metres in the south, and drained almost wholly by the Derwent system. The northern and eastern boundaries of the Plateau are the Great Western Tiers (paradoxically named since they lie in the central north of the island). This is known as the 'lake country' of the island and is one of the chief sources of hydro-electric power.

High Dissected Plateau: West of Lake St Clair, dolerite caps steeply-tilted sediments and the plateau is much dissected; it comprises a series of peaks and broken ridges. The coastlands in the extreme south of the region are rugged but in the D'Entrecasteaux Channel and Huon River areas, narrow coastal belts have been devoted to specialised agriculture.

Western Ranges: The high dissected plateau is bounded by a series of mountain ranges running parallel to the West Coast and in this region are located the State's principal mines. The south of the region is virtually uninhabited.



The above regions derive from a classification by J.L. Davies, M.A., PhD., University of Tasmania

Western Coastal Platforms: Throughout almost the entire length of the West Coast, an uplifted and much dissected peneplain slopes westward from about 275 metres altitude, ending abruptly in cliffs more than 30 metres high. In the south of this region, superhumid button grass plains predominate, and the area is uninhabited. On the coastal plain south of the Arthur River however, dairy cattle are wintered on agistment runs, while north of the river dairying begins to appear and swamps have been drained to allow farming.

North-West Plateau: North of the Western Ranges lies a plateau averaging nearly 610 metres altitude which is important mainly for forestry; the coastlands derive mainly from basalt, giving rise to intensive mixed farming based on dairying, potatoes and crops for canning and freezing, such as peas and beans.

Tamar Graben: This graben (rift valley) is the largest plain and the leading agricultural and pastoral district in the State; it ends in the drowned inlets of the Tamar and Mersey estuaries and of Port Sorell, in the north.

North-East Coastal Platforms: This region consists of undulating lowland but the soils are acidic and the land is used only for grazing.

North-East Highlands and Ben Lomond Horst: This region comprises mostly uplifted remnants of old fold mountains dominated by the 1 525 metre dolerite-capped plateau horst of Ben Lomond, an outlier of the Central Plateau. Here agriculture is largely confined to small basalt-derived basins. Some minerals are worked.

Dissected Plateau: In the south-east lies a low dissected dolerite plateau averaging perhaps 365 metres and used mainly for grazing. The northern coastlands of this region are narrow and also devoted to sheep, but the southern coastland is important for its specialised agriculture. At the extreme south of the region is the drowned estuary of the Derwent and the Tasman and Forestier Peninsulas.

ISLAND BIRDLIFE

by Trevor Waite

Reprinted from *The Islander*, Number 4, April 1986

TASMANIA, because of the existence of Bass Strait, doesn't have the bird population of some of the mainland States.

But in recent years, because of an increase in the number of people studying birds, several names have been added to the list of Tasmanian species, and more information has been found about the habits and movements of the birds which were already on the list. This applies especially to transequatorial waders which migrate from northern shores.

Although Tasmania lacks some of the well-known species it does have an abundance of some birds not seen in such large numbers in other States. Nowhere else can the masked (spurwinged) plover be seen in numbers as in Tasmania. Also the beautiful robins are more numerous than in other States.

Other species which are more plentiful are the crescent honeyeater, the olive whistler and the beautiful firetail. Together with permanent residents and migrants there are about 300 species listed.

Some species are found only in Tasmania. These are the flightless native hen, the green rosella, the yellow wattlebird, the yellow-throated honeyeater, the strong-billed honeyeater, the black-headed honeyeater, the forty-spotted pardalote, the dusky robin, the scrub-tit, the Tasmanian thornbill and the black currawong.

Two other species which are sometimes considered endemic are the swift parrot, which breeds only in Tasmania, and the orange-bellied parrot, found only in the south-west of the State where it nests in hollows, usually high in old eucalypt trees.

Most of these rare parrots migrate to the mainland after breeding and it is estimated that there could be less than 200 pairs of this species remaining. The cause of the decline in numbers of the orange-bellied parrot has been the destruction of vegetation combined with competition from the other species. Another parrot which is more numerous in Tasmania, although not often seen, is the ground parrot. The stronghold of this bird is the button grass plains and heathland of the south-west.

A real gem of the forest gullies and creeks is the pink robin. The male, with his magenta pink breast and black back is a delight to see. Although not a shy bird, because of its quiet habits and liking for secluded forest areas, it is rarely seen. Another beautiful bird which has retired to places not often visited by people, is the azure kingfisher. There was a time when this colourful kingfisher could be seen in the lower reaches of the northern rivers. The bird can still be seen at times in the Sisters Creek and other northern streams.

In the wet heathland areas, there is a furtive little bird with a long thin tail, a brown body and a blue throat. This is the southern emu wren. The thick heathland wetter areas of the Rocky Cape National Park are favourite haunts.

The white-fronted chat, or nun, is a small bird which has decreased in numbers in the north of the State, although it is not uncommon in other areas. Marshes and swamp areas are the feeding and nesting grounds of this smart little black and white ground feeder and it can easily be identified by the metallic "tang" as it moves around with agitated, jerky movements.

The increase in feral and numerous farm cats has had some bearing on the decrease of the beautiful firetail. The firetail is the only native Tasmanian representative of the large Australian finch family. It is a very attractive bird with fine markings on the body and a bright red beak and rump.

One of the rarer endemic birds is the forty-spotted pardalote, or diamond bird, which is often confused with its common relation the spotted pardalote.

While the spotted pardalote is found all over the State, the forty-spotted is confined mostly to Bruny Island and Maria Island and the population would not exceed 1 000.

A larger ground-loving bird, which is seldom seen, is the spotted quail thrush. This bird is neither a quail nor a thrush but has habits similar to a quail and in appearance is not unlike a thrush. The quail thrush is finely marked and spotted and not easily seen as it moves through the dry forest and stony hillsides.

Two birds of prey are among those species not often seen. The conspicuous white goshawk, although frequenting many parts of the island, is not common anywhere. Although a protected species, as are all birds of prey, it is sometimes shot. Likewise, the peregrine falcon has been greatly reduced in numbers — mainly due to its predation of homing pigeons. However its food includes a great number of animal and insect species including rats, mice and grasshoppers. This fine bird of prey would certainly come out on the credit side if its feeding habits were carefully analysed.

Other interesting species which are not at all common include the great crested grebe, the little grebe and two nocturnal birds, the handsome masked owl and the delicate little owlet nightjar.

Trevor Waite, a prominent Tasmanian ornithologist and wildlife photographer, operates the Birdland native gardens at Sisters Creek on the north-west coast. Tranquil Sisters Creek winds its way through wet sclerophyll forest where platypus can be seen as well as about 60 species of birds. Mr Waite extended his private parkland over many years turning a hobby into a career.

2.3 ENVIRONMENTAL MANAGEMENT AND CONTROL

2.3.1 National Parks and Reserves

The value of Tasmania's impressive natural scenery was officially recognised as far back as 1885 when the first reserve, covering 120 ha around Russell Falls, was created by proclamation. This area formed the core of one of Tasmania's first national parks, Mt. Field, when this was established in August 1916. On the same day the new Scenery Preservation Board established Freycinet National Park and reserves at St Columba Falls and Port Arthur.

The Board, a statutory authority set up under the *Scenery Preservation Act* 1915, operated from within the Department of Lands. Its responsibilities were taken over by a new government department with the establishment of the National Parks and Wildlife Service in 1971. In May 1987 the Service was amalgamated with the Lands Department to form the Department of Lands, Parks and Wildlife.

National Parks, State Reserves, Historic Sites, Game Reserves, Aboriginal Sites and Conservation Areas continue to be managed by the new department under the *National Parks and Wildlife Act* 1970.

Tasmania's natural and cultural resources are major reasons for tourists visiting the Island State. A study carried out in 1986–87 by the Centre for Regional Economic Analysis shows that about 35 per cent of visitors based their decision to holiday in Tasmania on the existence of National Parks and Historic Sites. The total contribution to the State's economy from these visitors was at least $119 million — about 2.4 per cent of the Gross State Product for 1986–87. Furthermore, the income generated directly by the parks and wildlife functions of the Department in 1986–87 was at least $62 million and the employment generated was 2 368 jobs, about 1.2 per cent of the State's workforce.

A $9m conservation and development program for the Port Arthur Historic Site, funded two-thirds by the Commonwealth, one-third by the State was terminated in 1986 when the Commonwealth refused to provide further funding. Subsequently the State Government, in order to have the site contribute directly to its operational costs, established the Port Arthur Historic Site Management Authority; it assumed responsibility for the Site on 1st October 1987. The Historic Site remains a State Reserve under the *National Parks & Wildlife Act* 1970.

In December 1982 the UNESCO World Heritage Committee declared Tasmania's three largest National Parks (Cradle Mountain–Lake St. Clair, Franklin–Lower Gordon Wild Rivers and Southwest) a World Heritage Area. This lead to cessation of the building of the Gordon-below-Franklin hydro-electric scheme, the payment of compensation to the State and the establishment of co-operative Federal–State management arrangements for the World Heritage Area. These arrangements provide for a Ministerial Council, chaired by the Premier of Tasmania and advised by a Standing Committee of officials and a Consultative Committee of independent experts. Additional planning, research and field staff are being employed, programs of capital works are being developed and management plans are being prepared.

Reserves

At 30 June 1987 the reserved land managed by the Department of Lands, Parks and Wildlife was as follows:

National Parks and Wildlife Act 1970

	No	*Area (ha)*
National Parks	13	851 141
State Reserves	54	1 999
Historic Sites	30	793
Nature Reserves	38	29 427
Aboriginal Sites	4	1 243
Game Reserves	9	2 779
Conservation Areas	59	851 870
Muttonbird Reserves	5	9 288
Crown Lands Act 1976		
Protected Areas	4	202 925
State Recreation Areas	16	6 355
Coastal, River and Lakeside Reserves	43	7 266

2.3.2 The Western Tasmania Wilderness National Parks World Heritage Area

Lying in the remote southwestern quarter of Tasmania, the Western Tasmania Wilderness National Parks World Heritage Area comprises wild rugged lands covering 769 355 ha which form one of the three last great temperate wilderness areas in the southern hemisphere. Within them lie remarkable glacial landscapes, rare and ancient plants, distinctive and uncommon animals, a rich and informative prehistoric cultural heritage and scenery of sweeping grandeur and intimate beauty. The area joins a very select number of places throughout the world that are recognised as being part of the heritage of all humanity, to be conserved for all time.

The World Heritage Convention

The Convention Concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention) was adopted by the UNESCO General Conference on 16 November 1972. Australia became one of the first countries to ratify the Convention, in August 1974, and the Convention came into force in 1975. There are now 100 signatory States from all parts of the world. The Convention is the most successful and widely recognised worldwide instrument in the field of heritage conservation.

The World Heritage Convention aims to promote co-operation among nations to protect heritage properties which are of such universal value that their conservation is a concern of all people. Signatories to the Convention commit themselves to help in the identification, conservation and presentation of World Heritage properties. They also undertake to refrain from any deliberate measures which might damage directly or indirectly the cultural and natural heritage of properties and to take appropriate legal, scientific, technical, administrative and financial measures necessary for their protection.

The Convention is administered by a World Heritage Committee consisting of representatives of 21 nations elected from those nations that are party to the Convention. Under the terms of the Convention there has been established a "World Heritage List" of properties having outstanding universal value. At December 1987 there were 288 places on the World Heritage List. They include the Pyramids of Egypt, the Grand Canyon of the United States, Chartres Cathedral in France and Sagamartha National Park (containing Mt. Everest) in Nepal.

World Heritage Criteria

The World Heritage Committee has adopted sets of criteria for assessing nominations for the World Heritage List. For natural property, nominations must satisfy one of the following criteria:

(i) be outstanding examples representing the major stages of the earth's evolutionary history; or

(ii) be outstanding examples representing significant ongoing geological processes, biological evolution and man's interaction with his natural environment; or

(iii) contain superlative natural phenomena, formations or features; for instance, outstanding examples of the most important ecosystems, areas of exceptional natural beauty or exceptional combinations of natural and cultural elements; or

(iv) contain the most important and significant natural habitats where threatened species of animals or plants of outstanding universal value from the point of view of science or conservation still survive.

In addition to the above criteria, natural properties need to fulfil certain conditions of integrity.

(i) The sites described by criterion (i) should contain all or most of the key interrelated and interdependent elements in their natural relationships.

(ii) The sites described by criterion (ii) should have sufficient size and contain the necessary elements to demonstrate the key aspects of the process and to be self-perpetuating.

(iii) The sites described by criterion (iii) should contain those ecosystem components required for the continuity of the species or of the other natural elements or processes to be conserved.

(iv) The area containing threatened species as described by criterion (iv) should be of sufficient size and contain the necessary habitat requirements for the survival of the species.

The Tasmanian World Heritage Area fulfils all four criteria for qualification as natural property and also fulfils criteria for qualification as cultural property.

Australia has seven World Heritage properties: Kakadu National Park, Stages I and II (1981 and 87), Great Barrier Reef (1981), Willandra Lakes Region of NSW (1981), Lord Howe Island Group (1982), Western Tasmania Wilderness National Parks (1982), Australian East Coast Temperate and Sub-Tropical Rainforest Parks (1986), and Uluru National Park (1987).

Australia is currently seeking listing of the Daintree rainforest in northern Queensland.

Nomination of the Tasmanian World Heritage Area

The Western Tasmania Wilderness National Parks area was initially recommended to the Commonwealth for World Heritage nomination by the Tasmanian Government in 1981. However, in 1982 a new State Government revoked parts of the Franklin–Lower Gordon Wild Rivers National Park to permit a Gordon-below-Franklin power development. Subsequently, the Commonwealth enacted the *World Heritage Properties Conservation Act* 1983, which was upheld by the High Court of Australia on 1st March 1985, to prevent the power development from proceeding.

This action forms the basis for the obligations of the Commonwealth Government to assist in management of the Tasmanian World Heritage Area (WHA).

Regardless of World Heritage listing, sovereignty of any World Heritage Area remains with the country where the site is located. In Australia States control most of the land and so Tasmania is responsible for the WHA, the Commonwealth Government only exerting influence on its management in so far as it believes this is required to ensure that management does not contravene the World Heritage Convention.

Commonwealth–State Joint Management Arrangements

Following the High Court decision, an agreement establishing joint management arrangements was reached between the State and Commonwealth Governments.

Under the terms of the agreement a Council of Ministers (the Tasmanian World Heritage Area Ministerial Council) was created to advise both governments on:

- management plans for the World Heritage Area;
- management requirements;
- annual and forward programs of expenditure for capital and recurrent costs of managing the World Heritage Area and development of appropriate infrastructure, accommodation and facilities; and
- scientific studies in relation to matters of natural or cultural significance.

The Ministerial Council currently comprises: the Premier of Tasmania (Chairman), the Deputy Premier (and Tasmanian Minister for Tourism) and the Commonwealth Minister for Arts, Sport, the Environment, Tourism and Territories.

A Standing Committee of officials has been set up to advise the Council and to oversee policies, programs, funding arrangements and the administration and preparation of management plans for the area. The Standing Committee comprises representatives of the following government departments: Australian National Parks and Wildlife Service, Tasmanian Department of Lands, Parks and Wildlife, Commonwealth Department of Arts, Sport, the Environment, Tourism and Territories, Department of Prime Minister and Cabinet, Tasmanian Department of Premier and Cabinet, Tasmanian Department of Tourism and Tasmanian Treasury Department.

A 15 member Consultative Committee has been established with a chairman appointed by the Ministerial Council and half the members by each Government. The role of the Consultative Committee is to provide advice to Ministerial Council and Standing Committee on matters relating to the development and management of the WHA.

The Department of Lands, Parks and Wildlife is the agency responsible for planning and on-the-ground management of the World Heritage Area.

The State–Commonwealth joint management arrangements provide for a rolling program of Commonwealth funding for planning and management of the WHA for the five years 1987–88 to 1991–92. Cost-sharing for this program is 2.2:1, with the Commonwealth contribution $11 million and the State contribution $5 million over that period. In addition to the rolling program of recurrent expenditure and minor capital works, the Commonwealth has made a commitment to provide funds for major capital works to be assessed annually on a project-by-project basis.

Management Plans

Under the WHA funding program a specialist group within the Department of Lands, Parks and Wildlife has been set up to prepare management plans, undertake scientific research particularly related to management and prepare information and interpretative material for visitors.

Management plans are prepared under the Tasmanian *National Parks and Wildlife Act* 1970. These are required to specify how the National Parks are to be "used, developed or managed". Preparation and approval of management plans is a lengthy process requiring consultation with the community, approval of the draft by State Cabinet, a period for public exhibition and comment and review by the National Parks and Wildlife Advisory Council, the WHA Consultative and Standing Committees and Ministerial Council. The draft management plan may then be amended by the Tasmanian Minister for Lands, Parks and Wildlife as is deemed necessary in line with the comments received. The amended draft is then circulated for final endorsement by State Cabinet, the Consultative and Standing Committees and the Ministerial Council. The management plan is then submitted to the Governor-in-Council for approval. Any sections of a management plan relating to the exercise of statutory powers other than is provided for by the *National Parks and Wildlife Act* require the approval of both Houses of the Tasmanian Parliament.

The management plan for the Cradle Mountain–Lake St Clair National Park was commenced prior to the coming into effect of the State–Commonwealth funding arrangements. It was placed on public exhibition in October 1985 and should receive final approval in 1988. Under the joint funding arrangements a combined management plan for the Southwest and Franklin–Lower Gordon Wild Rivers National


WESTERN TASMANIAN WILDERNESS
NATIONAL PARKS
WORLD HERITAGE AREA
Cradle Mt - Lake St Clair National Park
Planning Area
Roads
CRADLE VALLEY
MT OSSA
ROSEBERY
ZEEHAN
QUEENSTOWN
LAKE ST CLAIR
DERWENT BRIDGE
STRAHAN
MACQUARIE HARBOUR
FRANKLIN R.
Darwin Crater
FRENCHMANS CAP
SARAH ISLAND HISTORIC SITE
FRANKLIN-LOWER GORDON WILD RIVERS NATIONAL PARK
Sir John Falls
Point Hibbs
MT FIELD NATIONAL PARK
National Park
STRATHGORDON
Maydena
NEW NORFOLK
HOBART
Mt Anne
Low Rocky Point
SCOTTS PEAK
SOUTH-WEST NATIONAL PARK
HUONVILLE
Cygnet
Federation Peak
HARTZ MOUNTAINS NATIONAL PARK
Dover
PORT DAVEY
HASTINGS CAVES STATE RESERVE
Precipitous Bluff
0 10 20 30 40 50
Km
COCKLE CREEK
Southwest Cape
Cox Bight
De Witt Island
South Cape

Parks was commenced in March 1986. Finalisation of that draft is currently underway.

These management plans outline the known natural and cultural resources of the WHA, define overall objectives for management and give policies and management actions to be undertaken to ensure that world heritage resources are conserved and that appropriate provision is made for visitors. A zoning scheme forms the central part of the management plans with zones ranging from completely natural, where no provision is to be made for visitors and the land is to be managed as wilderness, through to tourist development where facilities such as overnight accommodation, day shelters, picnic areas and visitor centres are to be provided.

Management of the World Heritage Area

Day-to-day management of the World Heritage Area is carried out by the Land Management Division of the Tasmanian Department of Lands, Parks and Wildlife. Field bases are located at Cradle Mountain, Lake St. Clair, Collingwood River, Strahan and Mt. Field. Field staff undertake a wide variety of tasks including receiving, assisting and informing visitors, search and rescue, fire fighting, maintenance of park facilities, walking track upgrading and construction, monitoring of vegetation and wildlife, and exotic species control.

Under the joint management arrangements and with funds provided from the Commonwealth as part of compensation for not proceeding with the Gordon-below-Franklin power development, numerous minor capital works have been completed or are underway. These include Franklin River picnic facilities, Sir John Falls jetty, Overland Track toilets, upgrading of sections of the Overland, South Coast and Frenchmans Cap tracks, upgrading/construction of staff accommodation at Cradle Mountain, Lake St. Clair, Strahan and Melaleuca, and upgrading of workshops and equipment. Major capital works completed include the new campground for 200 people at Cradle Mountain, and the Lake St. Clair jetty.

The most serious problems for management in the World Heritage Area involve erosion — over 100 km of walking tracks are badly degraded and some 40 km of the Gordon River banks are seriously affected by wave-induced erosion. An annual program of upgrading walking tracks has been commenced. However, progress is slow and it will be many years before all major tracks have been stabilised. Repair of the Gordon River banks is a much more complex task. It has been established that destruction of the banks, first noticeable in 1984, is caused by the wakes of high speed tourist cruise vessels. Wake heights of over 12 cm have been found to generate erosion. The problem is exacerbated by the constant river level maintained by the Middle Gordon power development. Steps that have been taken to minimise the rate of erosion include imposition of a 9 knot speed limit over parts of the river, and rationalisation of cruise itineraries to decrease the frequency of trips. Rehabilitation of the full extent of affected bank is not economically feasible. In the long term the only solution is to eliminate the cause of erosion and allow the banks to repair naturally.

2.3.3 Pollution Control

Environmental Impact Studies

Public authorities in Tasmania are required to undertake environmental impact studies before proceeding with any development which may have a significant effect on the environment. During the 12 months to June 1986, 19 environmental impact statements were submitted to the Department of Environment for assessment:

- Quarry and crushing plant, Longley
- Installation of a woodwaste-fired fluid bed combustor to heat thermal oil, Legerwood
- Sewage treatment plant, Turner's Beach
- Silicon Smelter, Electrona
- Quarry, Riggs Road, Kindred
- Installation of a coal-fired fluid bed boiler, Scottsdale (supplement)
- Expanded operation of log yard, Boyer
- Quarry and crushing plant, East Ridgley
- Modifications to T and H rendering plant, Quoiba
- Establishment of a joint racing complex at Mowbray Racecourse, Launceston
- Upgrading of hockey centre, Cornelian Bay
- Supplement to the draft Environmental Impact Statement on Tasmanian woodchip exports beyond 1988
- Proposed forestry operations on the Sideling Range
- Establishment of a hatchery for Atlantic Salmon at Wayatinah
- Davey Street extension to Tasman Highway
- Reconstruction of the Arthur Highway between Taranna and Eaglehawk Neck
- Upgrading of Bass Highway from Penguin to Howth
- Welcome River drainage works
- 220 kV transmission line from Gretna to Lindisfarne.

In addition, licence applications, transfers or change of operation for various premises were examined and their likely environmental impact

assessed by the Department. These premises included refuse disposal sites, sewage treatment plants, fish processing plants, meat processing works, mines, quarries, loam, sand and clay pits, and abattoirs. Also eight mines, 11 quarries, 34 gravel, clay, loam and sand pits, together with refuse disposal sites, were inspected, and advice given regarding rehabilitation, or rehabilitation reports prepared.

Prosecutions

During the year 13 successful prosecutions were carried out under the *Environment Protection Act* and 12 under the *Litter Act*. Fines of up to $500 plus costs were imposed.

Emission Control Exemptions

Provision is made under the *Environment Protection Act* 1973 for the Minister to grant exemptions from the emission controls of Sections 15, 16, or 17 in respect of a specified act or course of action. This is the mechanism by which an industry or operator which is not immediately able to comply with emission controls is enabled to continue operation. Successive Ministers have considered what time is reasonably necessary before compliance is possible, taking into account time for investigation, design and construction, and the economic state of the polluter.

At 30 June 1986, 34 exemptions with an indefinite termination date, and 26 exemptions which expire on various dates between 31 July 1986 and 31 December 1999 were in force.

Industrial Pollution

During 1985–86 several sawmills at Westbury were directed to cease burning sawdust in incinerators. Problems from excessive smoke and fallout had been experienced at residences close to the mills, due to the type of incinerators employed by the mills. In Hobart, a major glass manufacturer and user of high sulphur fuel oil replaced its glass furnace. The new furnace is more efficient than the old furnace, and as the production rate of glass will be held at the pre-change over level, a reduction in the emission rate of sulphur dioxide is expected. The height of the chimney attached to the furnace was increased to decrease ground level concentrations of sulphur dioxide.

During the year 1985–86, a boat-based fish meal plant commenced operation at Triabunna. A substantial number of complaints regarding odours from the factory and several regarding noise from fans were received. The source of the odours was not established.

The proposed Hydro-Electric Commission's thermal power station attracted a significant quantity of public comment. The proposal has promoted the recording of meteorological variables at possible sites, and discussion on the possible impact of the station at the different sites.

Further work towards a new boiler system at a milk processing plant at Legerwood was carried out. The company decided to install a fluidized bed unit using woodwaste as the fuel. This was the first unit of its type, and was expected to attract interest from major boiler users and suppliers across Australia.

A brass foundry at Kings Meadows continued to cause problems as a result of odour and fume emissions. The surrounding area was zoned residential/commercial, and the factory was incompatible with the shops, offices and houses that were near the site. During the 1985–86 financial year the factory was relocated to an industrial estate.

A pigment factory at Heybridge started work on the conversion of its boiler fuel from heavy oil to coal. The conversion will reduce the quantity of sulphur dioxide emitted from the plant. A food processing factory near Scottsdale also changed its boiler installation to use coal. Two Launceston sawmills that were sources of many complaints started work on upgrading sawdust conveying systems and boiler operations to reduce the fallout of sawdust and soot. These upgrades were seen as necessary if the sawmills were to remain close to houses.

A hardwood sawmill at Smithton commenced the installation of dust control equipment in the exhausts of its three boilers. It was hoped that down-wind fallout would be significantly reduced by the units.

Clinker loading and clay unloading at a northern sea port caused significant concern in nearby residential and commercial districts. The only satisfactory conclusion is likely to be the setting up of costly bulk loading and unloading facilities.

Evaluation of an open submerged arc silicon furnace proposal, and presentation of evidence at an associated appeal, was a major item during 1985–86. Air pollution considerations of the proposal formed a significant part of the evidence discussed before the Appeal Board.

Municipal Reports

In accordance with Section 618 of the *Local Government Act*, each municipality is required to make an annual report to the Minister in relation to the prevalence of nuisances and pollution of the environment in the municipality.

The majority of problems mentioned by Councils were in relation to litter and waste disposal, noise from various sources and water

pollution by industries, sewage disposal and drainage.

Litter Control

A total of 65 contravention notices were issued during the year ended 30 June 1986. This represents a drop of fifty-five on the previous year. However, there was a tendency during the period to prosecute offenders, particularly for offences of dumping, rather than issuing notices as in the past. Eleven notices were issued by police officers, thirty-one by Government officers and voluntary authorised officers and twenty-three were reported to the Department by municipalities.

A total of 12 prosecutions under the *Litter Act* were initiated during the year and 35 persons were appointed authorised officers of which 16 were municipal appointments, 14 Crown employees in government agencies, and five were volunteers.

The most recent litter control initiative is the launching in 1984 of a litter reduction campaign, aimed at promoting and generating public concern about the need for litter control and involving the community in a variety of litter reduction activities. The campaign has maintained a high profile through advertising, radio and television interviews, distributing promotional material such as car litter bags, stickers and posters, staging exhibitions and displays and speaking at schools, service clubs, youth and other community organisations.

The campaign is administered by the Litter Control Council, membership of which comprises representatives of those organisations directly responsible for litter control in the State. With a and volunteer labour, maintaining and upgrading litter stations on the Arthur Highway and the establishment of a Youth Litter Co-ordinating Committee.

Water Pollution

The Department of the Environment undertakes a program of monitoring some of the State's rivers and waterways; the Derwent, Tamar and Mersey Rivers, Lisle Creek, Barilla Bay, Port Cygnet Bay, Emu and Cam Rivers, Cooee Creek, Hospital Bay and Buttons Creek, as well as the site of a bark dump on the East Tamar.

On 17 September 1985 a survey was carried out in the Derwent River from Dowsings Point to Kangaroo Bluff to determine heavy metal concentrations at surface, mid-depth and near the river bottom. This survey followed up earlier surveys carried out after the sinking of the *Lake Illawarra* near the Tasman Bridge on 5 January 1975. Generally the results obtained were similar to those obtained on the previous survey on 19 March 1985.

2.4 REFERENCES

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Chapter 3

GOVERNMENT AND ADMINISTRATION

Since 1 January 1901, Australia has been a federation of six States. In 1911 two territories, the Australian Capital Territory and the Northern Territory, were transferred to the Commonwealth from New South Wales and South Australia.

Government is exercised in three jurisdictions:

- Commonwealth Government, with powers derived from a written constitution and centred in Canberra, the national capital;
- State Government with residual powers (powers not reserved for the Commonwealth) which in Tasmania is centred in Hobart;
- Local Government with authority derived from State acts.

The main responsibilities of the Commonwealth Government are:

Foreign affairs and diplomatic representation; maintenance of the armed forces; customs and excise; posts and telegraphs; control of broadcasting and television; control of civil aviation; repatriation of ex-servicemen; immigration; industrial arbitration for national industries; control of coinage and currency; overseas trade promotions; employment service; pensions; national health benefits; federal territories and overseas dependencies; census and statistics; meteorological service; federal courts and police; control of banking; collection of sales and income taxes; housing assistance and defence service homes; scientific and industrial research; management of state and national debt; lighthouses and navigation.

The Tasmanian Government provides the greater number of community services including, transport, education, health, community welfare, housing, consumer affairs, forestry, fisheries, fire, police, emergency, agricultural and farming services. The Tasmanian Government is also responsible for prisons, courts, libraries, probation, racing and gaming, and labour and industry.



New Parliament House, Canberra. Stephen Hall

Local Government is mainly responsible for the maintenance of, parks, recreational and sporting facilities, roads and cemeteries, and provides town planning, sewerage, water, waste disposal and public health services.

During the two years to December 1987 the main political event within Tasmania was a national double dissolution election in July 1987. This gave the Labor Party its first win in a Tasmanian Division since it lost all five seats to the Liberals in 1975.

3.1 COMMONWEALTH GOVERNMENT

Legislative power of the Commonwealth is vested in the Commonwealth Parliament which consists of the Sovereign, Queen Elizabeth II (represented by the Governor-General), the Senate and the House of Representatives.

3.1.1 The Governor-General

Under the Commonwealth Constitution, ultimate executive power is vested in the Crown and is exercised by the Governor-General as the direct representative of the Sovereign. The present Governor-General is His Excellency Sir Ninian Martin Stephen, PC, AK, GCMG, KBE, K St J, who was sworn in on 29 July 1982.

3.1.2 Commonwealth Parliament

The Senate

Since 1984 each State has been represented by twelve Senators and, in addition, the Australian Capital Territory and the Northern Territory have been represented by two Senators each since the election of 13 December 1975. Each Senator's term is normally six years, as half the Senate seats come up for election every three years. However, in the case of a double dissolution of both Houses, half the Senators are elected for a six-year term (the first six elected in each State) and half for a three-year term.

In Senate elections each State is an electorate. Electors are required to cast a vote for every candidate standing within the State in order of their preference or for a Party or group. Election of members is carried out in accordance with the principles of proportional representation by the single transferable vote.

If a vacancy occurs in the Senate, the appropriate State Government nominates a replacement, of the same political affiliation, who sits for the remainder of the term. If the vacant seat is contested at an ordinary Senate election, then seven, instead of the normal six candidates, will be elected in the State affected and the Senator last elected will fill the vacancy for a term shorter than the full six years.

In March 1986, Mrs Jocelyn Newman was nominated by the Liberal Party to fill a casual Senate vacancy following Senator Peter Rae's resignation to switch to State politics.

In April 1987 the Labor Party nominated Mr John Devereux to fill the vacancy left when Dr Don Grimes retired from the Senate to become Australian Ambassador to the Netherlands. However his nomination was rejected by the vote of a joint sitting of both houses of the Tasmanian Parliament.

The House of Representatives

The founders of the parliamentary system, when designing the House of Representatives, envisaged a legislative body representing the national interest. The party holding a majority of seats in the House of Representatives, therefore controlling the House, provides the Government. The federal election of July 1987 returned the Labor Government under the leadership of Prime Minister Robert Hawke for a third term.

Following an increase in the size of the Parliament in 1984, Australia is divided into 148 single-member electorates. All five Tasmanian seats were held by the Liberal Party from November 1975 until July 1987 when Duncan Kerr (ALP) replaced Michael Hodgman in Denison.

3.2 HOUSE OF REPRESENTATIVES MEMBERSHIP

New South Wales	51
Victoria	39
Queensland	24
South Australia	13
Western Australia	13
Tasmania	5
Northern Territory	1
Australian Capital Territory	2
Total	148

Election of members is carried out in accordance with the principles of the absolute majority through use of preference voting. If a vacancy occurs, it is filled by holding a by-election. Elections must be held at least every three years.

Representation in the House of Representatives is based upon the general principle of having, as nearly as practicable, electorates with equal numbers of electors. This is provided by regular electoral redistributions.

3.1 TASMANIAN SENATORS, NOVEMBER 1987

Senator	*Office address*	*Party affiliation*	*Year of retirement*
Archer, B. R.	111 Wilmot Street, Burnie, 7320	Liberal	1993
Aulich, T.	52 Tamar Street, Launceston, 7250	ALP	1993
Calvert, P.H.	3 Brooke Street, Hobart, 7000	Liberal	1990
Coates, J.	16 Victoria Street, Hobart, 7000	ALP	1993
Devereux, J.R.	14 Rosny Hill Road, Rosny, 7018	ALP	1990
Devlin, R.	49 Cattley Street, Burnie, 7320	ALP	1990
Harradine, R. W. B.	Marine Board Building, 1 Franklin Wharf, Hobart, 7000	Independent	1993
Newman, J.	11 Elphin Road, Launceston, 7250	Liberal	1990
Sanders, N. K.	18 Gregory Street, Sandy Bay, 7005	Australian Democrats	1990
Tate, M. C.	Marine Board Building, 1 Franklin Wharf, Hobart, 7000	ALP	1993
Walters, M. S.	Marine Board Building, 1 Franklin Wharf, Hobart, 7000	Liberal	1993
Watson, J. O. W.	42 St John Street, Launceston, 7250	Liberal	1990

3.3 TASMANIAN MEMBERS OF THE HOUSE OF REPRESENTATIVES

Member	*Office address*	*Party affiliation*	*Electorate*
Burr, M.	Cnr Brisbane and George Streets, Launceston, 7250	Liberal	Lyons
Goodluck, B.	Marine Board Building, 1 Franklin Wharf, Hobart 7000	Liberal	Franklin
Kerr, D.	115 Collins Street, Hobart, 7000	ALP	Denison
Miles, C.	TGIO Building, 75 Wilson Street, Burnie 7320	Liberal	Braddon
Smith, W.	CML Building, 65 Brisbane Street, Launceston 7250	Liberal	Bass

1987 Double Dissolution Election

On 27 May 1987 the Prime Minister announced an election for the House of Representatives and the Senate for 11 July. The double dissolution election was based on the Australia Card Bill which had been first rejected by the Senate in December 1986.

When nominations closed on 19 June, candidates from the Australian Democrats, Australian Labor Party and the Liberal Party of Australia were contesting the five House of Representatives seats. Contesting the 12 Senate vacancies were 17 candidates from the three political parties, including John Devereux who had been rejected by the Tasmanian Parliament as the Labor party's nomination to replace Dr Grimes, and four independents including Senator Brian Harradine.

3.4 1987 HOUSE OF REPRESENTATIVES ELECTION RESULTS, TASMANIA

Candidate	*Party*	*Primary votes*
Bass —		
Smith, Warwick	Liberal	28 149
Taylor, Richard	Labor	23 311
Preece, Michael L.	Democrats	2 910
Informal		3 281
Braddon —		
Miles, Chris	Liberal	32 108
Currie, David	Labor	23 307
Informal		2 173
Denison —		
Bell, Robert	Democrats	4 054
Kerr, Duncan	Labor	26 732
Hodgman, Michael	Liberal	24 590
Informal		2 540
Franklin —		
Harmsen, Patsy	Democrats	5 171
Goodluck, Bruce	Liberal	27 725
Sherry, Nick	Labor	22 292
Informal		2 619
Lyons —		
Holloway, Liz	Democrats	4 236
Burr, Max	Liberal	27 645
Adams, Dick	Labor	22 435
Informal		3 684

The election gave the Australian Labor Party its first House of Representatives win in Tasmania when Mr Duncan Kerr defeated Mr Michael Hodgman in Denison, since it lost all five seats in 1975.

In the Senate the ALP and the Liberal Party each won five seats, the Democrats won one seat and the other seat went to Senator Brian Harradine.

3.5 1987 SENATE ELECTION RESULTS, TASMANIA

Party/Candidate	*Primary vote*	*Group quotas (a)*
Harradine, Brian	36 784	
Sacco, Colin	253	
Total	37 037	1.71
Liberal		
Archer, Brian	90 541	
Walters, Shirley	3 890	
Watson, John	2 552	
Newman, Jocelyn	5 192	
Calvert, Paul	3 638	
Smith, Vince	1 341	
Aldridge, Peter	885	
Total	108 039	5.03
Labor		
Tate, Michael	100 706	
Coates, John	4 454	
Aulich, Terry	2 485	
Devlin, Ray	952	
Devereux, John	3 739	
Cooper, Janet	890	
Green, John	412	
Total	113 638	5.29
Democrats		
Sanders, Norm	18 175	
Goldie, Nick	372	
MacGregor, Isla	294	
Total	18 841	0.87
Ungrouped		
Mansell, Michael	1 102	
Heathorn, Laurie	203	
Total	1 305	
Total valid votes	278 860	12.99

(*a*) Quota = 21 451 votes.

3.2 TASMANIAN GOVERNMENT

3.2.1 Historical Summary

In its short history, Tasmania has experienced several forms of government; beginning with autocratic rule, it graduated to responsible self-government as a British colony and finally surrendered some sovereign powers to take its place as an original Australian State.

The evolution of the system of bi-cameral responsible government within a federal system falls into five distinct phases:

1803–1825: The island was part of the colony of New South Wales and its lieutenant-governors and commandants were subordinate to the Governor in Sydney.

1825–1851: On 14 July 1825, Van Diemen's Land was created a separate colony with a Lieutenant-Governor directly responsible to the Secretary of State in London. A nominated Legislative Council was established.

1851–1856: The passage of the *Australian Constitution Act* 1850 by the Parliament in London was followed by the establishment of a new Legislative Council in which 16 members were elected and eight were nominees of the Lieutenant-Governor. The newly constituted Council first sat on 1 January 1852.

1856–1901: By the *Constitution Act* 1854, two houses of parliament, the House of Assembly and the Legislative Council were established, both houses being elected. The first Parliament sat on 2 December 1856 (the first year in which the island was officially called Tasmania); representatives of the Crown carried the title of Governor.

1901: The Tasmanian Constitution was limited by the establishment of the Commonwealth Constitution. In effect, the Parliament of Tasmania may make laws operative within the State upon all matters not within the exclusive power of the Australian Parliament but, on those matters for which the Australian Government may also legislate, the Tasmanian law may be superseded by the passing of an act by the Commonwealth Parliament.

Tasmania's legislature consists of the Queen, represented by the Governor, and two houses of parliament, the Legislative Council (upper house) and the House of Assembly (lower house).

3.2.2 The Governor

The Governor of Tasmania is the representative of the Sovereign in the State and exercises the powers of the Crown in State matters. The Queen appoints the Governor on the advice of the Premier, generally for a five-year term. Powers and duties of the Governor are similar to those of the Governor-General.

On all official State occasions, he performs the ceremonial functions as the representative of the Queen. The Governor summons and prorogues parliament; in special circumstances he may dissolve it after considering the advice of his Premier. Bills which have passed all stages in parliament are submitted to the Governor for his assent although there are some subjects which are specifically reserved for the Royal Assent (e.g. a Bill granting land or money to the Governor). He opens each session of parliament by outlining the legislative program of the government, but takes no other part in the sittings of either house.

His executive powers include the appointment of ministers of the Crown, judges and other important State officers but not those whose appointments may be made by certain statutory corporations. By appointing ministers of the Crown, the Governor creates the Executive Council of the day and he is required by his instructions to be guided by the advice of this body. Should he feel it necessary to act against the advice of the Executive Council, he may do so, but the reasons for such action must be immediately reported to the Queen.

If the Governor is to be absent for a period in excess of one month, the Chief Justice acts as Administrator. Tasmania's present Governor is H.E. General Sir Phillip Bennett, AC KBE DSO who was sworn in as Tasmania's 30th Governor



General Sir Phillip Harvey Bennett

3.6 SUCCESSION OF GOVERNORS, ACTING GOVERNORS, ADMINISTRATORS, ETC. FROM 1924

Name	Designation	Term of office	
		From	To
Sir James O'Grady, KCMG	Governor	23.12.24	23.12.30
Sir Herbert Nicholls, KCMG	Lieutenant-Governor	23.12.30	4. 8.33
Sir Ernest Clark, KCMG, KCB, CBE	Governor	4. 8.33	4. 8.45
Sir John Morris, KT	Administrator	4. 8.45	24.12.45
Admiral Sir Hugh Binney, KCB, KCMG, DSO	Governor	24.12.45	8. 5.51
Sir John Morris, KCMG	Administrator	8. 5.51	22. 8.51
Rt. Hon. Sir Ronald Cross, Bart, KCMG, KCVO	Governor	22. 8.51	4. 6.58
Hon. Sir Stanley Burbury, KBE	Administrator	4. 6.58	21.10.59
Rt. Hon. Lord Rowallan, KT, KBE, MC	Governor	21.10.59	25. 3.63
Hon. Sir Stanley Burbury, KBE	Administrator	25. 3.63	24. 9.63
Lt-General Sir Charles Gairdner, KCMG, KCVO, KBE, CB	Governor	24. 9.63	11. 7.68
Hon. Sir Stanley Burbury, KBE	Administrator	11. 7.68	2.12.68
Lt-General Sir Edric Bastyan, KCMG, KCVO, KBE, CB	Governor	2.12.68	30.11.73
Hon. Mr Justice Green	Administrator	30.11.73	5.12.73
Hon. Sir Stanley Burbury, KCVO, KBE	Governor	5.12.73	30. 9.82
Hon. Sir Guy Green, KBE	Lieutenant-Governor	1. 4.82	30. 9.82
Sir James Plimsoll, AC, CBE	Governor	1.10.82	8.5.87
Hon. Sir Guy Green, KBE	Lieutenant-Governor	9.5.87	18.10.87
General Sir Phillip Bennett, AC KBE DSO	Governor	19.10.87	

on 19 October 1987. He was born in Perth, Western Australia, on 27 December 1928 and started his military career at the Royal Military College Duntroon. On 13 April 1984 he was promoted to General and appointed Chief of the Defence Force. He was awarded the Distinguished Service Order for service in Vietnam in 1968–69 and is a companion of the Order of Australia and Knight Commander of the Order of the British Empire.

General Bennett replaced the former diplomat, Sir James Plimsoll, who died suddenly on 8 May 1987.

3.2.3 The Cabinet and Executive Government

In Tasmania, as in the other States and the Commonwealth, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as 'Cabinet', or 'responsible' government. Its essence is that the head of the State (in Tasmania, the Governor) should perform governmental acts on the advice of his ministers; that he should choose his ministers of State from members of parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the ministry, the Cabinet, so chosen should be collectively responsible to that House for the government of the country; and that the ministry should resign or advise an election if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs or understandings, and through institutions that do not form part of the legal structure of government. In law, the executive power of the State is exercised by the Governor who is advised by the Executive Council which he himself has appointed.

Premiers

The present Premier of Tasmania is The Honourable Robin Trevor Gray who, as leader of the Liberal Party, assumed office following the Liberal Party gaining a majority in the 1982 election.

3.7 PREMIERS FROM 1939

Name of Premier	Term of office	
	From	To
A.G. Ogilvie *(a)*	22. 6.34	10. 6.39
E. Dwyer-Gray	11. 6.39	18.12.39
R. Cosgrove	18.12.39	18.12.47
E. Brooker	18.12.47	25. 2.48
R. Cosgrove	25. 2.48	26. 8.58
E.E. Reece	26. 8.58	26. 5.69
W.A. Bethune	26. 5.69	3. 5.72
E.E. Reece	3. 5.72	31. 3.75
W.A. Neilson	31. 3.75	1.12.77
D.A. Lowe	1.12.77	11.11.81
H.N. Holgate	11.11.81	26. 5.82
R.T. Gray	26. 5.82	

(a) Tasmania had an unbroken succession of Labor premiers, starting with the Ogilvie Ministry (1934) until the electoral defeat of the Reece government on 26 May 1969.

3.2.4 The House of Assembly

The Tasmanian Lower House comprises 35 members elected for a term of four years from five seven-member electorates.

3.8 MEMBERS OF THE HOUSE OF ASSEMBLY AS AT OCTOBER 1987

Electoral division	*Member's name*	*Party affiliation*
	Beswick, The Hon. R.J.	Liberal
	Holgate, The Hon. H.N.	ALP
	James, G.H.	ALP
Bass	Madill, F.L.	Liberal
	Patmore, P.J.	ALP
	Rae, The Hon. P.E.	Liberal
	Robson, N.M.	Liberal
	Bonde, W.B.	Liberal
	Cornish, The Hon. R.	Liberal
	Field, M.W.	ALP
Braddon ...	Groom, The Hon. F.R.	Liberal
	Peart, G.J.	ALP
	Rundle, A.M.	Liberal
	Weldon, M.W.	ALP
	Barker, J.S.	Liberal
	Batt, The Hon. N.L.C.	ALP
	Bennett, The Hon. J.M.	Liberal
Denison	Brown, R.J.	Ind.
	Groom, The Hon. R.J.	Liberal
	Jackson, J.L.	ALP
	White, J.C.	ALP
	Bates, G.M.	Ind.
	Beattie, J.M.	Liberal
	Bladel, F.M.	ALP
Franklin	Evers, The Hon. N.C.K.	Liberal
	Hodgman, The Hon. P.C.L.	Liberal
	Pearsall, The Hon. G.A.	Liberal
	Wriedt, The Hon. K.S.	ALP
	Batt, C.L.	ALP
	Braid, The Hon. I.M.	Liberal
	Gray, The Hon. R.T.	Liberal
Lyons	Llewellyn, D.E.	ALP
	Mainwaring, R.G.	Liberal
	Page, G.R.	Liberal
	Polley, M.R.	ALP

Officers of the House of Assembly

Speaker — The Hon. R. Cornish
Chairman of Committees — Mr J. Beattie
Clerk — Mr P. McKay
Clerk Assistant and
Sergeant-at-Arms — Mr P. Alcock

Electoral System

Tasmania uses proportional representation known as the Hare-Clark system in elections for the Assembly.

- Party groups are identified on ballot papers.
- Candidates' positions within groups are rotated so that in 'preferred' positions all candidates appear on the same number of ballot papers.
- A valid vote must show at least seven preferences.
- To secure election, candidates must secure a quota — the total first preference votes divided by eight, plus one vote.
- On polling day, no media advertising and no soliciting of votes near the polling booth is permitted.
- The constituencies are the same five divisions used for House of Representatives elections.

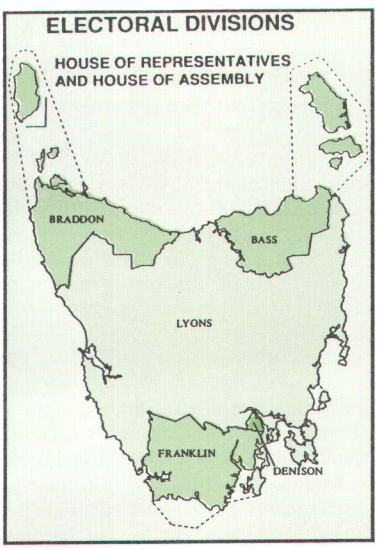
1986 Election

Months of speculation about an early election ended when the Premier nominated February 8 as polling day, four months ahead of the due date; a total of 86 candidates nominated.

The result was a widely-predicted win for the Liberal Party, gaining 53.9 per cent of the state-wide vote, an increase of five per cent over their 1982 vote. For the Labor Party there were few signs of encouragement; electoral support slipped to just 35.4 per cent.

3.9 PARTY DISTRIBUTION OF VOTES IN ELECTORATES (%)

Electorate	*Australian Labor Party*	*Australian Democrats*	*Liberal Party*	*Other*
Bass	38.0	6.2	55.8	—
Braddon	34.2	3.4	60.4	1.9
Denison	31.3	—	43.4	25.4
Franklin	36.5	—	51.5	12.0
Lyons	37.2	—	59.2	3.4
Statewide	35.4	1.9	53.9	8.7



Resignation and Recount

Former Minister, Mr Geoff Davis resigned from parliament in September 1987, two months after resigning from the Liberal Party over the Government's decision to base the chief executive of the proposed Tasmania Bank in Launceston. Mr Davis was elected to parliament in 1982 when the Liberal Party won government and became a Minister when Mr Max Bingham left parliament to join the National Crime Commission in 1984.

The vacancy was filled by Mr John Barker following a recount of Mr Davis' original votes. Mr Barker was formerly a government liaison officer.

3.2.5 The Legislative Council

The Legislative Council has the tradition of being a non-party house; in 1985 the composition of the house was 18 Independents and one Labor Party representative. The leader for the Government in the Legislative Council therefore cannot rely upon a vote taken on party lines to ensure the passage of any government bill. Contrary to the House of Assembly where parties usually dominate to ensure the passage of Government legislation, no such certainty exists with legislation through the Council. As a result it is not unusual for legislation to be amended or even rejected. Where conflict occurs between the two Houses, 'managers' are appointed from each House to meet and attempt to resolve the dispute. Occasionally, even such 'Managers Conferences' fail to resolve the differences.

Following conflict between the two Houses of Parliament over a money bill during 1924 and 1925, the *Constitutional Amendment Act* 1926 was passed. This Act defined the relations between the two Houses especially with regard to the passing of money bills.

- The Legislative Council retains the right to reject any bill, including a money bill.
- The Council is specifically prevented from amending bills to raise revenue for the ordinary annual services of the Government and bills imposing land and income tax.
- It can suggest to the House of Assembly that amendments be made but the adoption or rejection of such amendments is at the discretion of the Assembly.

Apart from the above specific exception, the Council retains the right to amend money bills, e.g. those dealing with loan funds or probate. The House of Assembly is given the sole right to initiate bills for the raising of revenue and the imposition of taxes. Finally, the powers of the two houses are declared equal in all matters except for these specific exceptions.

Legislative Council Elections

Each member, when elected, holds office for six years and Council elections are held every year to elect three members; every sixth year four members are elected.

As for the Assembly, candidates' names are rotated on the ballot papers. To secure election, a candidate must obtain 50 per cent of the valid votes plus one, including preferences. A valid vote must show at least three preferences.

3.10 MEMBERS OF THE LEGISLATIVE COUNCIL, DECEMBER 1987

Electoral division	*Member's name*	*Year of retirement*
Buckingham	Lowe, The Hon. D.A.	1992
Cornwall	McKendrick, The Hon. R.L.	1990
Derwent	Batt, The Hon. C.L. (*a*)	1991
Gordon	Broadby, The Hon. A.J.	1988
Hobart	Petrusma, The Hon. H.	1988
Huon	Meyer, The Hon. A.Y.	1990
Launceston	Wing, The Hon. D.G.	1988
Macquarie	Shaw, The Hon. G.A.	1992
Meander	Hope, The Hon. R.T.	1991
Mersey	Braid, The Hon. H.W.	1990
Monmouth	Wilson, The Hon. S.J.	1993
Newdegate	Ginn, The Hon. R.W.	1993
Pembroke	McKay, The Hon. P.C. (*b*)	1989
Queenborough	Stopp, The Hon. E.J.	1989
Russell	Fletcher, The Hon. A.W. (*c*)	1993
South Esk	Archer, The Hon. R.C.	1992
Tamar	Coates, The Hon. J.A.	1989
West Devon	Hiscutt, The Hon. H.J.	1989
Westmorland	Chellis, The Hon. D.O.	1991

(*a*) Endorsed by the Australian Labor Party; all other members are Independents.
(*b*) Deputy Leader for the Government.
(*c*) Leader for the Government.

Officers of the Legislative Council

President — The Hon. A.J. Broadby
Chairman of Committees — The Hon. R.T. Hope
Deputy Chairman of Committees — The Hon. G.A. Shaw
Second Deputy Chairman of Committees — The Hon. S.J. Wilson
Clerk — Mr. A. Shaw
Clerk Assistant and Usher of the Black Rod — Mr. R.J.S. McKenzie.

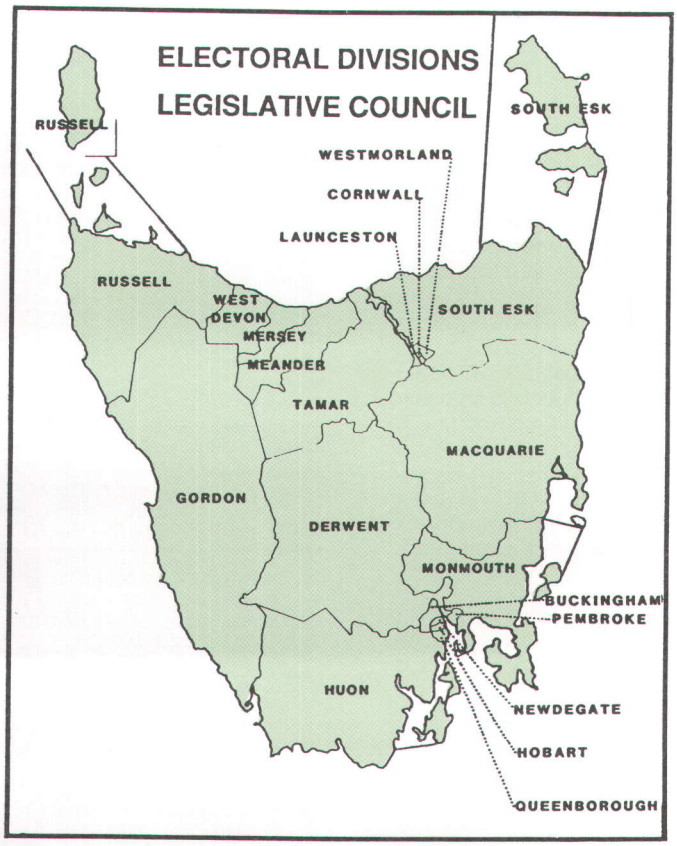
In 1986 by-elections were held for Huon and Newdegate. Huon became vacant following the retirement of Mr Peter Hodgman to contest the 1986 House of Assembly elections. From 15 candidates, Mr Athol Meyer won the seat after the distribution of preferences.

In Newdegate, The Hon. B.K. Miller retired after a long political career including a number of years as a Minister in Labor governments. Nine candidates contested the election which was won on preferences by Mr Ross Ginn.

Rotational elections were held for Buckingham, Macquarie and South Esk in 1986 and Monmouth, Newdegate and Russell in 1987. In Russell The Hon. A.W. Fletcher was returned unopposed and sitting members Shaw, Archer and Wilson were returned in Macquarie, South Esk and Monmouth. In Buckingham, however, Mr Ken Lowrie, Government Leader in the Council, was defeated by Mr Doug Lowe, a former Labor Premier and Independent in the House of Assembly.

3.2.6 Departments

The system of responsible government in Tasmania requires that the executive power of the State shall be exercised by the Cabinet; in exercising this power, the ministers of the Cabinet are held responsible for the actions and administration of government departments and other governmental authorities which have been created to put into practice the laws made by parliament, to give effect to the decisions of the ministry, and to advise the ministry on matters of policy.



Ministers, Portfolios and Responsibilities as at 31 December 1987

Premier, Treasurer, Minister for State Development and Small Business and Minister for Energy		
The Hon. R.T. Gray	Department of the Premier and Cabinet Audit Department The Ombudsman	Treasury Department Hydro-Electric Commission Tasmanian Development Authority
Deputy Premier, Minister for Tourism, Minister for Licensing, Minister for Police and Emergency Services, Minister for Road Safety and Minister for Gaming		
The Hon. G.A. Pearsall	Department of Tourism Licensing Board Police Department State Emergency Service	Tasmanian Fire Service Electoral Department Gaming Commission Road Safety

Ministers, Portfolios and Responsibilities as at 31 December 1987 — *continued*

Attorney-General, Minister for Lands, Parks and Wildlife and Minister for Sport and Recreation		
The Hon. J.M. Bennett	Law Department Public Trust Office Supreme Court and Sheriff's Department	Department of Lands, parks and Wildlife Department of Sport and Recreation Motor Accidents Insurance Board
Minister for Employment and Training, Minister for Housing, Minister for Labour and Industry and Minister for Consumer Affairs		
The Hon. R.J. Beswick	Training Authority of Tasmania T.E.P. Tasmanian Training and Employment Programme C.E.P.	Housing Department Department of Labour and Industry Consumer Affairs Council Bicentenary
Minister for Main Roads, Minister for Local Government, Minister for Water Resources and Minister for Racing		
The Hon. I.M. Braid	Department of Main Roads Local Government Office Town and Country Planning Commission	Rivers and Water Supply Commission Hobart Regional Water Board North-West Regional Water Authority Racing
Minister for Public Administration, Minister for Primary Industry and Minister for Transport		
The Hon. N.C.K. Evers	Department of Public Administration Office of the Commissioner for Public Employment Office of the Commissioner for Review Department of Agriculture Transport Department	Metropolitan Transport Trust Dairy Industry Authority Egg Marketing Board Tasmanian Grain Elevators Board Tasmanian Herd Improvement Organisation
Minister for Health, Minister for Community Welfare and the Elderly		
The Hon. F.R. Groom	Department of Health Services Mental Health Services Commission Department for Community Welfare	Disabled Persons Services Tasmanian Ambulance Service
Minister for Forests, Minister for Mines, Minister for Sea Fisheries, Minister for Multicultural Affairs and Minister Assisting the Premier		
The Hon. R.J. Groom	Forestry Commission Mines Department	Department of Sea Fisheries
Minister for Construction, Minister for Administrative Services, Minister for the Environment and Minister for Inland Fisheries		
The Hon. P.C.L. Hodgman	Department of Construction Government Printing Office Supply and Tender Department Royal Botanical Gardens	Department of the Environment Inland Fisheries Commission Tasmanian Government Insurance Office
Minister for Education and the Arts, Minister for Industrial Relations, Minister for Deregulation and Minister for Technology		
The Hon. P.E. Rae	Education Department Tasmanian State Institute of Technology University of Tasmania State Library Tasmanian Arts Advisory Board Tasmanian Museum and Art Gallery	Queen Victoria Museum and Art Gallery Tasmanian Industrial Commission Office of Industrial Relations Deregulation Advisory Board

3.3 ACTS OF STATE PARLIAMENT

Summary of State Acts, 1986

Act no.	*Short title (a)*	*Summary*
1	Parliamentary Superannuation	Commutation of existing pensioners' entitlements.
2	Valuers Registration	Offences in practice of valuation and false implication of a person being a valuer.
3	War Terms	Amended definition of 'prohibited word'.
4	Motor Accents (Liabilities and Compensation)	Premiums for compulsory cover.
5	Tasmanian Pensioners Union (Articles of Association)	Quorum for a general meeting and related matters.
6	Alcohol and Drug Dependency	Made amendments in relation to powers of courts, failure to comply with conditions and treatment orders and leave of absence. Inserted new section 31A.
7	Podiatrists Registration	Relates to registration, withdrawal from and restoration to register, notification of removal, subsidiary disciplinary powers and use of anaesthetics.
8	Medical	Unregistered persons prohibited from using a medical title.
9	Poisons	Limits application of certain provisions and deals with sale and supply of narcotic substances, prohibited plants and substances.
10	Traffic (Common Expiry Dates)	Amended regulations and consequential amendments.
11	Co-operative Housing Societies	Amended regulations and constructed conditions to be imposed.
12	Petroleum Products Subsidy	Relates to the preservation, stocktaking and inspection of accounts and the time for bringing proceedings for offences.
13	Racing and Gaming	Amount of tax payable by a holder of soccer football pools licence and refunds by the Treasurer.
14	Miners' Pensions	Interpretation and application of the Act, qualification for lump sum benefits and alternative retiring age for managers and colliery engineers.
15	Tasmanian Government Insurance	Amended sections 9 and 10 of the Principal Act relating to the General Manager, Deputy General Manager and section 28 involving the investment of surplus money.
16	Daylight Saving	Allowed for the amendment of dates for the operation of the annual daylight saving period.
17	Theatre Royal Management	Established a board to manage the Theatre Royal and to present and promote the performing arts.
18	National Parks and Wildlife	Provided for the prohibition on introduction of certain animals.
19	Door to Door Trading	Revised law relating to door to door trading and repealed *Door to Door Sales Act* 1967.
20	Workers (Occupational Diseases) Relief Fund	Remuneration of members contributions to the fund and initial medical examinations.
21	Education	Supply of equipment to new government schools.
22	Loan Fund Appropriation (No. 2)	Authorised the issue and application of further money from the Loan Fund for the service of the year ending on 30 June 1986.
23	Mining	Conditions of licences, new sections dealing with geothermal substances licences and interpretation, and matters relating to exploration licences.
24	Soft Fruit Industry (Repeal)	Repealed *Soft Fruit Industry Act* 1972 and provided for matters consequential upon the dissolution of the Soft Fruit Industry Board.
25	Primary Producers' Relief	Terms and conditions of loans applicable under the Act.
26	Loan Fund Supply 1986–1987	Applied out of the Loan Fund a sum for the service of the year.
27	Consolidated Revenue Fund Supply 1986–1987	Applied out of Consolidated Revenue a sum for the service of the year.

Summary of State Acts, 1986 *continued*

Act no.	*Short title (a)*	*Summary*
28	Local Government (Municipality of Lyell)	Constitution of the municipal district of Lyell by the amalgamation of the municipal districts of the municipalities of Queenstown and Gormanston and part of Zeehan.
29	Child Protection	Relates to the Board, community education, assessment centres, places of safety, information as to the maltreatment of children, child protection order, duties of authorities and medical practitioners. Inserts provisions relating to secrecy, presumptions, obstruction and children's courts.
30	Local Government	Power to dispose of corporate land, investment, application and payments of municipal funds, buildings on narrow streets, cessation of term of annual office reports on nuisance and pollution. Interpretation and power to withhold certain information.
31	Racing and Gaming (No. 2)	Interpretations, conditions of registration, appointment of stipendiary stewards, duties of bookmakers and provisions for disposal of unclaimed winnings. Repealed sections involving the fund for the relief of jockeys and their dependents.
32	Racing	Membership of the Directorate, its employees, the Tasmanian Thoroughbred Racing Council, the constitution and membership of the Directorate, the Council, the Tasmanian Greyhound Racing Board and the Racing Appeal Board and the dissolution of the Racing Board.
33	Biological Control	Biological control of pests in Tasmania and for related purposes.
34	Evidence	Evidence in criminal proceedings.
35	Traffic	Allowed for the amendment of section 3 relating to ride-on lawn mowers.
36	Vermin Destruction	Amendments to interpretation, powers of inspectors, duties of occupiers, appeals, keeping of vermin, carrying of vermin and the prohibition of introduction of rabbits into islands of Bass Strait. Inserted new sections 21A–N, covering matters relating to permits. Repealed section 7 and increased penalities for offences.
37	Parliamentary Salaries and Allowances	Salaries that are payable to Members as determined by the Auditor-General.
38	Hydro-Electric Commission (Power Development Amendment)	Provided for the location and expense involved with the construction of the Anthony River Power Scheme.
39	Tasmanian Development	Annual reports and powers of the Governor.
40	Supreme Court Civil Procedure	Amended section 13 of the Principal Act.
41	Tasmanian State Service	Amended the Principal Act in relation to the procedures of appeal and the Commissioner for Review.
42	Crown Advocate	Reconstituted Crown Advocate as the Director of Public Prosecutions and consequential amendments.
43	Solicitor-General	In relation to employees and the provision of, as necessary for the purpose of assisting the Solicitor-General in the performance of his functions.
44	Jury	Criminal issues, trial by jury, mode of impanelling jury and challenges in criminal cases.
45	Justices	Mode of taking evidence, reciprocal enforcement of fines against bodies corporate and the recording of depositions and proceedings.
46	Libraries	Contributions payable by corporations of municipalities.
47	Marine	Amended the methods of election, general duties of boards, general powers and application of revenues. Also dealt with alteration of name of board, master warden and Chairman, Marine Board of Burnie and disclosure of interests.
48	Burnie Marine Board Loan	Allowed Board to borrow $30 000 000.
49	Devonport Marine Board Loan	Related to borrowing powers of the Board.
50	Northern Casino	Inserted section relating to authorised machines.

Summary of State Acts, 1986 *continued*

Act no.	*Short title (a)*	*Summary*
51	Wrest Point Casino Licence and Development	Allowed for the amendment of the casino licence, new games, finance, powers of police officers, and the principal agreement.
52	Transport	Made amendments in relation to power of the Commission, bank accounts; funds of the Commission overdrafts, Transport Commission Depreciation Fund and accounts.
53	Cancer Services	Treatment of cancer in Tasmania.
54	Consolidated Fund (Miscellaneous Amendments)	Amended *Audit Act* 1918, *Acts Interpretation Act* 1931 and the *Constitution Act* 1934 consequential upon the enactment of the *Public Account Act* 1986. Repealed *Consolidated Revenue Fund Act* 1873.
55	Emergency Services	Provided for the declaration of a state of disaster or state of alert.
56	Public Account	Repealed *Public Account Act* 1957, Made provisons for the Public Account, its investment, the establishment and administration of a Consolidated Fund, the establishment of a Special Deposits Trust Fund and powers of the Treasurer.
57	Development Control	Provided State Government with power to control and regulate certain developments and in particular; matters relating to environmental impact statements and silicon development.
58	Local Government (Rates and Charges Remission)	Amended the amount of financial assistance to municipalities in respect of remissions. Validated certain payments made by the Treasurer to municipalities.
59	Workers' Compensation	Amended the *Workers' Compensation Act* 1927 in respect of alternative remedies and inserted new section 10 allowing for application to bring on actions.
60	Fire Service	Functions and powers of the Commission, auxiliary fire brigade, fire hazards, fixing of rate of levy, Hobart special fire area, personnel required to pay fire levy, exemptions, pensioner rebates, charges for services at fires, evidence and liability of the Commission.
61	Petroleum Products Business Franchise Licences	Licence fees.
62	Transport (No. 2)	The Transport Research Facilities Trust Fund.
63	Land Tax	Set scales for the payment of land tax from 1 July 1986.
64	Licensing	Fees for licences, club licences, off licences and special wine producers' licences.
65	Roads and Jetties	Amendments relating to State Highways Trust Fund.
66	Electricity Consumption Levy	Imposed levy on the consumption of electricity by certain high-volume consumers.
67	Stamp Duties	Allowed or further provided for payment of duty by return, late stamping of instruments, monthly returns, payment credit and transactions through licensed credit card providers, special provisions relating to all exempt accounts, scales of rates and duties, exempted instruments, and rules for calculation.
68	Financial Institutions Duty	Imposed duty on financial receipts, provided for assessment and collection of the duty.
69	Forestry	Qualification to become Chief Commissioner for Forests and Assistant Commissioners.
70	Mental Health Services	Payments to members of boards.
71	Motor Vehicles Securities	Second hand dealers and security interests.
72	Employment Incentive Assistance	Empowered Minister to make grants, provisions of grants, agreements regarding grants.
73	Local Government Amendment (Development and Building)	Transitional provision and revival of certain appeals.
74	Temporary Reduction of Salaries	Provided for the temporary reduction of remuneration to Members of Parliament, Judges and Government employees.

Summary of State Acts, 1986 *continued*

Act no.	*Short title (a)*	*Summary*
75	Anzac Memorial Hostel	Introduced new section 4 into the Principal Act in relation to the power of trustees to sell the Anzac Memorial Hostel.
76	Fisheries	Penalities and validated certain regulations.
77	Criminal Code (Bail)	Procedure on application for bail.
78	Marine (No. 2)	Retirement of wardens.
79	Blood Transfusion (Limitation of liability)	Limits liability for transmission of AIDS through transfusion of blood and blood products.
80	Long Service Leave	Periods for which mining employees and other employees are entitled to long service leave.
81	Long Service Leave (Casual Wharf Employees)	Long service leave entitlements.
82	Long Service Leave (Construction Industry)	Payments and contributions.
83	Hydro-Electric Commission (Pieman River Power Development)	Expenses associated with the constructon of the works.
84	Police Regulaton	Protection from liability for police officers.
85	Consolidated Fund Appropriation 1986–1987	Provided for the issue and application out of the Consolidated Fund a sum for the service of the financial year ending on 30th June 1987.
86	Criminal Code	Hearing by a Judge of any complaint of a simple offence.
87	Mines Inspection	Employees' safety representatives.
88	Australian Citizenship (Miscellaneous Amendment)	Amends acts replacing the status of British subject with Australian citizen.
89	Appeal Costs Fund	Relates to additional fees, payments from the fund, indemnity certificates, abortive proceedings, new trials, taxation of costs, maximum amount payable from the fund.
90	Unauthorised Documents	Prohibited the printing, publication, sale, or distribution of unauthorised documents which convey the misleading impression of being authorised by a tribunal.
91	Commercial Arbitration	Repeal *Arbitration Act* 1892 and made provisions for arbitration in respect of certain disputes in this State.
92	Acts Interpretation	Powers to appoint and remove.
93	Criminal Proceedings (Civil Remedies)	Remedies available in connection with criminal proceedings to persons suffering loss, damage, or injury as a result of the Commission of certain crimes and other offences.
94	Prisoners (Interstate Transfer)	General amendments.
95	Crown Land (Miscellaneous Provisions)	Allowed for the part closure of the Bass Highway.
96	Pharmacy	Unprofessional conduct of pharmaceutical chemists and persons other than a registered pharmaceutical chemist being unable to hold an interest in pharmacies.
97	Hospitals	Agreements with medical services companies, staff representation on boards, and expenditure of money by boards.
98	Land Titles	Brought certain Crown Land under the control of the Principal Act, dealt with estate and interests of the said land and notification being given in the Registry of Deeds.
99	Associations Incorporation	Makes provisions for applications for incorporation.
100	Libraries (No. 2)	Amended the Principal Act in connection with annual reports, constitution and functions of the Advisory Board.
101	Crown Lands (Miscellaneous Provisions)	Altered the dedication of land at or near Davies Avenue, Queen's Domain, Hobart.
102	Stock	Amended sections relating to the mustering of stock, protected area orders, inspection and movement of stock, powers of inspectors, destruction orders, control of infected areas, compensation and licences.

Summary of State Acts, 1986 *continued*

Act no.	*Short title (a)*	*Summary*
103	Marine (Port of Devonport Authority)	Election of wardens and related matters.
104	Meat Hygiene	Amended sections in connection with the appointment, powers and obstruction of inspectors, the granting of certain applications, non-application to certain animals, and offences relating to the sale of certain pet foods.
105	Wynyard Airport (Special Provisions)	Made provision for the variation of agreement, municipal contributions, the advisory committee and miscellaneous amendments.
106	Marine (No. 3)	Rating powers, offences, voting districts and transitional provisions.
107	Chiropractors Registration	Repeals sections of Act, *Medical Amendment Act* 1982 and *Physiotherapists' Registration Amendment Act* 1982.
108	Traffic (No. 2)	Altered the determination of the gross vehicle mass or gross combination mass.
109	Supplementary Appropriation 1985–1986	Made provision for or with respect to the appropriation of money out of the Loan Fund and from the Consolidated Revenue Fund for the financial year ended on 30 June 1986.
110	Shop Trading Hours	Certain shops prohibited from opening on certain occasions.
111	Stamp Duties	Duty paid on insurance policies transactions.
112	Fisheries	Relates to injury or damage to marine farms.
113	Industrial Relations	Comprehensive amendments to 1984 Principal Act.
114	Common Law (Miscellaneous Actions)	Abolished claims for the loss of consortium and for gratuitous services.
115	Justices (No. 2)	Provided for the care and custody of court records and the power to remand in certain cases.

3.4 LOCAL GOVERNMENT

As at 31 December 1987, local government in Tasmania is administered by the councils of 42 municipalities and the cities of Hobart, Launceston, Glenorchy and Devonport. Each council is responsible for the provision of many of the services necessary for the organisation and welfare of the community which it represents.

In Tasmania there are only two categories of local government, a municipality or a city. Before a municipality can petition to become a city, it must have had, for five years before the petition, an average population of not less than 20 000.

For any of a number of reasons, the Minister administering the *Local Government Act* may consider it necessary to recommend suspension of the elected councillors and the appointment of a commission, or in certain cases, an administrator to carry on municipal government in a particular municipality.

A councillor must be an elector of, and either reside or carry on business in, the muncipality. Councils may comprise six, nine, 12 or 15 councillors. The warden, deputy warden and treasurer are elected by the council members on an annual basis. The electors of Hobart elect the Lord Mayor and in Glenorchy and Devonport the electors elect the Mayor. However, the Mayor of Launceston is elected by Council members. The office of warden is comparable with that of the mayor of a city or the president of a shire in other States.

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Chapter 4

LAW AND ORDER

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Chapter 4

LAW AND ORDER

Law represents the formalised customs and rules which provide social cohesion in modern human society. The authority of the law is derived from several sources; the enforcement agencies such as the police and the courts; the deterrence derived from the prominence of these institutions and the penalties they apply; and more generally, the historical success of the legal system. The effect of this authority can be measured partly by rates of conviction and reported lawbreaking and also by surveys of people's experience of crime.

Tasmania's laws, its legal system and institutions are derived from Britain. Indeed, for a time, English law directly applied to the colony and, by Federation in 1901, all Australian States had a legal system firmly based on the Common Law of England. With federation, Tasmanians also became subject to Commonwealth laws enforced by administratively separate institutions.

The legal system is based on the political and philosophical ideal called *the rule of law*. This means a person's relations with other people and the State are governed by law, not by force or arbitrary power. The Parliament enacts the law and officers who administer the law are responsible, through parliament, to the people.

Another principle of the rule of law is that no person should be deprived of his life, liberty or property except by fair trial in open court presided over by impartial judges. In law, all people are equal.

Australia has two sources of law, case law and legislation or statute law. Case law, also called common law, consists of rules resulting from the decisions of the courts. When a case comes before the courts, the judges generally apply the law as laid down or interpreted by earlier courts that decided similar cases.

The Commonwealth and State parliaments make Australia's laws within powers set out in the Constitution. Often legislation gives power to the Governor-General, Governor or a Minister to make rules of law. Such laws, called subordinate, or delegated, legislation are an important part of the law.



State, and Commonwealth, police are charged with enforcing the law. The police have broad powers to investigate breaches of the law and to arrest people suspected of crimes. Usually, it is the police who institute criminal proceedings. Each State as well as the Commonwealth has its own police force.

When formal charges are laid, guilt or innocence is determined through trial in a court. In Tasmania, this is either the Supreme Court or, for less serious matters, a lower court, with each having jurisdiction in civil, as well as criminal, matters. In civil trials and in criminal matters in the lower courts the verdict is generally determined by a magistrate or a judge. In the Supreme Court criminal matters are decided by a jury.

Tasmanian legislation regulating juries seems to have been first passed in 1830 although the *Hobart Town Gazette* shows that juries had been employed in the colony for the trial of criminal cases from the establishment of the Supreme Court in 1824.

Although the Tasmanian jury system is based on the English system it has, since 1934, embodied the principle of allowing majority decisions in certain circumstances instead of requiring the unanimous decisions once characteristic of juries in England. In criminal cases, a 10–2 decision is accepted in lieu of 12–nil after stipulated periods of deliberation. In the case of murder, 12–nil is necessary to convict, but 10–2 can bring in a verdict of not guilty, or not guilty of murder but guilty of a lesser crime.

Civil cases have a seven-member jury and, if after three hours deliberation a seven–nil decision cannot be reached, a five–two decision is accepted. If the minimum five–two decision cannot be reached after four hours, the jury may be discharged.

At present, all people listed on the electoral roll below the age of 65 are liable for service as jurors. However, persons convicted of an offence, bound by a recognizance or subject to a work order or probation are disqualified from service.

Within limits prescribed in legislation, the presiding officer of the court imposes a sentence; a fine or imprisonment, each of which may be suspended on a condition of good behaviour, probation, or work order.

4.1 POLICE

Directed by a Police Commissioner answerable to the Minister of Police, the Police Department is composed of a force of 1 021 officers (one per 437 persons) plus support personnel. It consists of four main branches; criminal investigation, traffic control, recruitment and training and support services.

The duty of a police officer is to serve the community by protecting life and property, preserving the peace and detecting and apprehending offenders. There are few limits however to the variety of tasks police officers are called on to perform.

Crime Frequency, 1985–86	
Property crimes	— One offence every 23.2 mins.
Theft (excluding motor vehicle theft)	— One offence every 43.9 mins.
Breaking and entering	— One offence every 107.1 mins.
Fraud, forgery, misappropriation	— One offence every 512.7 mins.
Motor vehicle theft	— One offence every 718.0 mins.

4.1.1 Criminal Investigation

Tasmania Police has Criminal Investigation Branches in their Divisional Headquarters at Hobart, Launceston and Burnie. The task of each branch is to detect and investigate crime and to offer the public advice on how to prevent crime.

Although it is Australia's smallest State force, Tasmania Police employs modern methods of criminal investigation and has a reputation for consistently producing a high rate of reported crime being 'cleared up'. In the period 1985–86, the clear-up rate of indictable criminal offences reported was 24.7 per cent compared with 31.2 per cent for 1984–85.

Reported Serious Crime Per Head of Population	
1976–77	1 crime per 2.93 persons
1980–81	1 crime per 3.86 persons
1984–85	1 crime per 4.48 persons
1985–86	1 crime per 4.85 persons

Uniform officers from city, suburban and country police stations are often the first on the 'scene of a crime' and their reports are sent to the Divisional Criminal Investigation Branch (CIB) for specialist attention. Each crime report is examined by senior officers and allocated to a detective. Then can follow hours of telephone calls, general enquiries, interviews, examination of statements and forensic reports in an effort to track down offenders.

4.1 OFFENCES RECORDED BY TASMANIA POLICE, 1985–86

Offences	*1985–86*
Assault and like offences	1 397
Homicide	27
Crimes of indecency and like offences	107
Other offences against the person	40
Offences against property	22 638
Fraud and similar offences	1 025
Miscellaneous police offences	3 542
Licensing Act offences	2 164
Racing and Gaming Act offences	169
Traffic and road safety offences	57 621
Miscellaneous Acts and offences	3 151

Several specialist squads have been formed within the CIB.

The Major Crime Unit which was formed in August 1984, investigates serious crime such as murder and manslaughter.

The Drug Bureau gathers, receives, collates and acts on information relating to illicit importation, trafficking and usage of narcotics and other drugs.

In recent times, drug trafficking has spread throughout the world. Since 1984, additional personnel have been seconded to the Drug Squad for assistance to deal with security of the poppy industry during the growing and harvesting season. The Tasmanian Government has national and international responsibilities under the 1961 Single Convention on Narcotic Drugs. In Tasmania this responsibility is exercised by close co-ordination of the work of the Poppy Advisory Control Board and the Police Department.

The Vice Squad is responsible for the investigation of crimes against the person as well as the investigation of all matters that have sexual overtones. It is also responsible for policing the *Classification of Publications Act*, the *Child Protection Act* and certain aspects of the *Child Welfare Act*.

The Fraud Squad was formed to combat white collar crime. These crimes can vary from a simple dishonoured cheque to a complicated company embezzlement. A thorough knowledge of banking systems and contract law is essential for detectives working in this Squad.

The State Arson Squad investigates fires involving arson and fires for which a cause cannot be readily determined. Detectives liaise with the State Fire Services, Hydro-Electric Commission, Government Analyst and other authorities which may be able to help in the investigation. During the summer months, the Squad is also charged with the responsibility for the investigation of unlawfully lit rural fires and offences against the provisions of the *Fire Services Act* 1979.

The Breaking Squad investigates all burglaries and related crimes such as stealing, receiving and possession of stolen property. The control of second-hand dealers and shop licences is also its responsibility. The investigation of theft which does not involve breaking into premises and the investigation of property damage is the work of the General Squad.

Detectives in the Anti-Stock Stealing Squad investigate all stock thefts, check the transportation of stock, attend stock sales and assist RSPCA and National Parks and Wildlife personnel in their investigations.

Officers of the Corporate Affairs Squad are on permanent secondment to the Corporate Affairs Office in Hobart and work statewide in liaison with the Corporate Affairs Commission. They investigate corporate and related fraud and offences relating to the *Companies Act*.

Gaming Branch officers are responsible for the surveillance and investigation of persons associated with unlawful gaming.

4.1.2 Traffic Control

The aim of the Traffic Patrol is to keep traffic moving safely on Tasmanian roads. Traffic police detect traffic offenders, illegal parking, control the streets during parades, provide escorts for VIP visitors and overwidth vehicles, and investigate and assist at accident scenes.

The Accident Investigation Squad attends all fatal and serious accidents where serious charges are likely to arise. It is the duty of the first police officer on the scene of an accident to ensure it remains undisturbed until the arrival of the Squad. It is also the duty of the officer to ensure all the drivers of the vehicles involved are given a breath analysis, even if they have been taken to hospital. The officer also has the sad task of ensuring next of kin are notified and of completing the initial Coroners Form. In 1986 there were 1 468 road traffic accidents on Tasmanian roads that involved casualties.

The Road Toll

The number of people killed or injured on the roads has stabilized over the last few years, but unfortunately has not been significantly reduced. Major factors contributing to fatal road accidents are alcohol, speed, pedestrian fault, failure to keep to the left and failure to give right of way.

4.2 THE ROAD TOLL, TASMANIA

Period	*Persons killed*	*Persons injured*	*Total*
1981	111	2273	2384
1982	96	1871	1967
1983	70	1473	1543
1984	84	2015	2099
1985	78	2070	2148
1986	91	2060	2151

4.1.3 Support Services

In fulfilling their role as crime fighters and protectors of the community, Tasmania Police is assisted by various support services which are administered and developed by the Management Services District.

The District has six specific areas of operation: Planning and Research Section; Search and Rescue Section; Transport Section; Communications (Technical) Section; Information Bureau; and Scientific Bureau. Of special assistance to Criminal Investigation and Traffic Branches is the Scientific Bureau.

The Scientific Bureau is divided into four main areas; Photographic, Fingerprints, Ballistics and Questioned Documents. Members of the Bureau

In recent times, drug trafficking has spread throughout the world. Since 1984, additional personnel are highly qualified in their respective fields, and work closely together in their efforts to prove the guilt or innocence of persons suspected of having committed a crime. Their forensic duties are performed in co-operation with the Government Pathologist and Analyst.

4.1.4 Crime Prevention

A vigilant, well informed public can take an active role in crime prevention. Making people responsible for their own safety and the security of their property is the aim of officers who work in the Crime Prevention Bureaux of Tasmania Police.

Their advice is readily available to householders, businesses, government and other police officers. Many lectures and workshops are given every year to schools, service clubs and businesses. They also test the many anti-crime devices offered by commercial firms, such as locks and payroll protection.

Neighbourhood Watch

Neighbourhood Watch started in Tasmania in March, 1986.

The objective of the Neighbourhood Watch Program is to reduce preventable crime, particularly burglary, by residents in a defined area being alerted to unusual activities in that area.

The scheme is similar to that operating in other Australian States and is based on a scheme which originated in Canada.

The defined area for a Neighbourhood Watch Program normally contains about 600 households. It is set up after there is demonstrable community interest and if the area has a significant crime rate, especially burglary.

It is implemented after a public meeting is held and 30 to 40 geographic zones containing a certain number of households are set up. Each zone elects a leader who in turn elects an area co-ordinator.

Police attend meetings and provide information on local crime rates and provide other help where needed.

In Tasmania there are currently eight Neighbourhood Watch areas.

The basic requirements for entry to the police force are Australian or British citizenship, age, education, health and physique. Entrants must pass an exam and physical fitness test. The candidates are interviewed by a selection board and medically examined before a final selection of recruits is made. In 1986, 34 recruits were inducted into the force.

The training course for recruits is a 44 week fully residential course conducted at the Police Academy at Rokeby, near Hobart. There is a full study schedule of academic and practical subjects, and physical training and sport. Recruits get a chance to work in police stations, with community groups and to develop survival skills in the bush.

The curriculum is based on the modern thematic modular approach to specific problem areas which face police officers. Legal procedures, social and practical policing techniques of each area are taught at the same time.

Nearly 2 000 police officers and members of other agencies attend over 70 in-service courses a year at the Academy. Topics range from police subjects such as criminal investigation, bomb squad and legal procedures to domestic crises intervention and small boat handling.

4.2 COURTS

Courts are tribunals set up to hear arguments to resolve allegations that offences have been committed and to resolve disputes. Where matters are proven the courts impose a penalty or penalties; where matters in dispute are decided the court can impose appropriate conditions of settlement.

As in the other Australian States, Tasmanian courts derive from British traditions. Thus the basic hierarchy of courts is similar between States, except that in Tasmania there are no intermediate courts. The Higher courts are titled Supreme Courts and deal with matters of a major nature. Cases brought before the Supreme Court will usually be heard by a judge and jury. It also hears appeals from lower courts at which the case will be heard by several judges and be referred to as the Full Court of the Supreme Court or the Court of Criminal Appeal.

Lower courts in Tasmania are known as Courts of Petty Sessions or Magistrates Courts which deal with minor civil or criminal matters. Civil matters involving amounts of less than $5 000 are heard in Courts of Requests.

Cases involving children are heard by the Children's Courts and may involve either a criminal matter or an allegation under child or community welfare legislation relating to a child being in need of care, control or protection.

In addition, inquests concerning certain deaths or the cause of fires are held as required in Coroners Courts.

Although not strictly courts, there are also a number of tribunals set up under particular statutes to act as specialised courts. An example is the Wardens' Court constituted under the *Mining Act* 1929 to hear matters involving mining licences.

Alongside the State courts, Tasmanians, like the residents of the other States, are subject to Commonwealth laws, for which there is a system of Commonwealth Courts. The most prestigious is the High Court of Australia constituted by the Chief Justice and six other Justices to resolve inter-state disputes and disputes between the Commonwealth and the States. If there is sufficient business, the High Court may sit in Hobart.

With the passing of the *Family Law Act*, in 1975, the Family Court of Australia was established to deal with divorce and the custody of children. The sole ground for divorce became irretrievable breakdown of marriage.

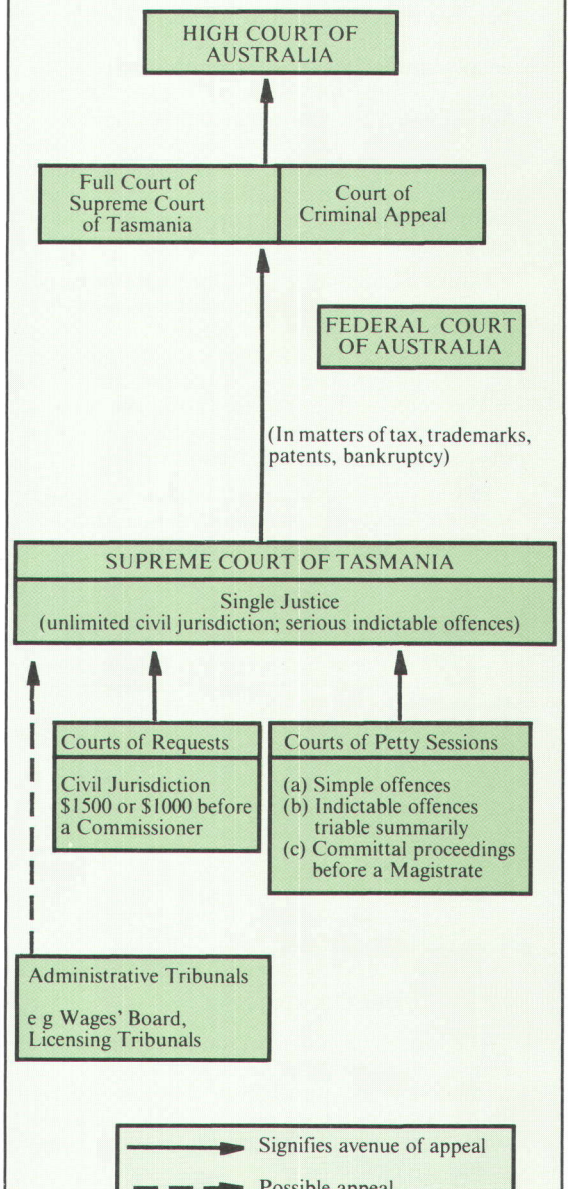
4.2.1 Supreme Court

The Supreme Court of Tasmania is constituted by the Chief Justice and six puisne judges. Regular sittings of the court are held at Hobart, Launceston and Burnie, although the court is authorised to sit and act at any time and at any place in the exercise of the jurisdiction and business of the court.

Puisne Judges —
The Hon. Mr Justice Francis Neasey, appointed 1963.
The Hon. Mr Justice Robert Nettlefold, appointed 1971.
The Hon. Mr Justice Henry Cosgrove, appointed 1977.
The Hon. Mr Justice William Cox, appointed 1982.
The Hon. Mr Justice Peter Underwood, appointed 1984.
The Hon. Mr Justice Christopher Wright, appointed 1986.

The court has jurisdiction over all cases, both civil and criminal, except those reserved for other courts under the Australian Constitution. It also exercises federal jurisdiction in particular matters. Its civil jurisdiction extends to all cases of action, whatever the amount involved may be, and its criminal jurisdiction includes the trial of all indictable offences. In

The Tasmanian State Court System



Taken from DRC Chalmers, *Textbook for Legal Studies Tasmania*, Butterworths, Sydney, 1983, p533.

civil cases, the court has power to call in the aid of one or more assessors specially qualified to assist in the trial of the actions, but is not bound by the opinion or advice of any such assessor.

The jurisdiction of the court is usually exercised by one judge of the court. From his decision there is a right of appeal to the Full Court of the Supreme Court of Tasmania. A Full Court usually consists of three or more judges of the court. The Full Court is also a Court of Criminal Appeal under the Criminal Code. Appeals may be brought by the Crown or by an accused person from all inferior courts where an indictable offence is involved as well as from many statutory tribunals. In some cases, there is an appeal as of right, in other cases, leave is required.

Unlike a Children's Court, the Supreme Court is in no way inhibited in imposing a penalty on a child. In addition to its ordinary sentencing powers, it may make supervision or wardship orders, and commit a child to an institution. If a child is sentenced to imprisonment, the responsible Minister may direct that the sentence be served in a place other than a gaol.

In 1986, 77 per cent of matters finalised in the Supreme Court were proven. Most of the matters finalised, 87 per cent, involved males.

4.3 OFFENCES, TASMANIAN SUPREME COURT, 1986

Offence	*Finalised*	*Proven*
Offences against the person	366	272
Robbery and extortion	17	15
Breaking and entering, fraud and other offences involving theft	1 346	1 050
Property damage and environmental offences	26	20
Offences against good order	28	22
Drug offences	23	17
Motor vehicle, traffic and related offences	18	15
Total	1824	1411

4.2.2 Lower Courts

The lower courts are presided over by magistrates or justices of the peace and exercise both criminal and civil jurisdiction in minor matters. Both jurisdictions are kept separate although the same magistrate or justice of the peace may preside over both types of case.

Civil cases include minor disputes in the 'common law' area such as landlord and tenant disputes and hire purchase; magistrates generally try cases alone, without a jury. In their criminal jurisdiction the courts have power to try and impose sentence in summary offences. Some magistrates preside over Children's Courts.

Courts of Petty Sessions

There are Courts of Petty Sessions sitting in Hobart, Launceston, Devonport and Burnie, as well as temporary courts in other country centres. The court is constituted by a magistrate (who must have been a legal practitioner or barrister for not less than five years) or by two or more lay justices. In major centres of population, a court sits regularly; in smaller centres a court sits less frequently or is convened as occasion requires.

A Court of Petty Sessions has jurisdiction over all summary offences and also over certain indictable offences at the option of the defendant, including escape, facilitating escape and related offences; stealing, fraud and receiving stolen property of a value between $500 and $5 000; unarmed breaking into a building other than a dwelling where the value of the property involved does not exceed $5 000; and forgery and uttering of a cheque for not more than $5 000.

Courts of Request

These are constituted as courts with civil jurisdiction for particular municipalities in accordance with the authority given by the *Local Courts Act* 1896. Courts are held before a commissioner who is usually a magistrate. Every court has jurisdiction throughout the State but a plaintiff may have his action struck out if he brings it in a court other than the court nearest to which the cause of action arose. In such circumstances the plaintiff may lose costs.

The current jurisdiction of a Court of Requests covers all personal actions where the debt or damage claimed does not exceed the maximum amount fixed under the Act. Legislation which took effect on 15 September 1985 has increased the jurisdiction of the Court of Requests to $5 000, and abolished the distinction between liquidated and unliquidated claims in so far as that distinction affected the institution of actions.

In September 1985 there was a Small Claims Division formed within the Court of Requests structure to handle, generally speaking, claims up to $2 000. A special commissioner was appointed to handle such matters. His primary function is to attempt to bring the parties to a dispute to an acceptable settlement but, if he cannot do so, he may determine the matter in dispute. Proceedings in this jurisdiction are private, straightforward and informal. Legal practitioners are excluded as a general rule, and the Special Commissioner may proceed as he sees fit.

Matters finalised in the lower court may be finalised by referral to the Supreme Court. In 1986, 129 matters were finalised by this method. Most were in relation to the more serious crimes

of offences against the person and breaking, entering, fraud and other theft. About 86 per cent of matters finalised involved males, a similar percentage to that for higher courts. In terms of age the majority of matters coming before the courts relate to young offenders; males in the age bracket 15–24 account for about 55–60 per cent of male matters finalised. (Males in this age group comprise only 23 per cent of the male population aged 15 years and over.) A similarly high proportion of female matters finalised relate to women in this same age bracket.

4.4 OFFENCES, TASMANIAN LOWER COURTS, 1986

Offence	*Finalised*	*Proven*
Offences against the person	820	656
Robbery and extortion	8	2
Breaking and entering, fraud and other offences involving theft	6 048	5 453
Property damage and environmental offences	1 532	1 414
Offences against good order	7 157	6 409
Drug offences	1 692	1 633
Motor vehicle, traffic and related offences	6 312	6 193
Other offences	39	39
Total	23 608	21 799

Children's Courts

A 'child' in this jurisdiction is one under the age of 17 years. The court before finally disposing of the case, must receive a report from a child welfare officer (the representative of the Director of Community Welfare), unless the court considers the offence trivial or the Director decides not to provide one. A child's parent has the right to be heard and to examine and cross-examine witnesses, or to be represented by counsel; also a parent can be compelled to attend the hearing if this imposes no unreasonable inconvenience.

In summary proceedings, the court is compelled not to enter a conviction against a child unless it imposes a sentence of imprisonment or there are special circumstances which indicate that a conviction should be recorded.

Children under 16 years cannot be sentenced to imprisonment and children of 16 years cannot be sentenced for more than two years, in aggregate. Minimum penalties imposed by statute do not apply to children; for those under 14 years the maximum fine is $20, and for those over 14 years, $100. The court may impose a supervision order to bring the child under the guidance of a child welfare officer or, if over 15 years, of a probation officer. Alternatively, the court may declare the child a ward of the State, placing him or her under the control of the Director for Community Welfare until his or her eighteenth birthday, unless released sooner; it may also direct that a ward be committed to an institution. In cases where further investigation appears necessary the Court may issue a remand for an observation order before it makes a final decision. Remands for observation orders are for short periods and usually provide for intensive supervision. (In the case of delinquency the maximum period for such an order is three months.)

Neglected or uncontrolled children are in the Court's jurisdiction. It may make a supervision order, an interim order (similar to a remand for observation order, the effect being to defer the transfer of guardianship until it is apparent that there is no suitable alternative), or impose wardship or bind the parents over to provide proper care and control, and comply with other directions. If parents have contributed to a child's offence by failing to control the child they may also be charged, convicted, fined, ordered to pay for damage and obliged to enter into a recognisance for the good behaviour of the child for up to 12 months.

4.5 OFFENCES, TASMANIAN CHILDREN'S COURTS, 1986

Offence	*Finalised*	*Proven*
Offences against the person	143	135
Robbery and extortion	–	–
Breaking and entering, fraud and other offences involving theft	2 158	2 098
Property damage and environmental offences	223	216
Offences against good order	1 697	1 629
Drug offences	27	27
Motor vehicle, traffic and related offences	87	86
Other offences	6	6
Total	4 341	4 197

Coroner's Court

Coroners are appointed by the Governor and have jurisdiction throughout the State. Under the *Coroners Act* 1957, a coroner may hold an inquest:

- concerning the manner of death of any person who has died a violent or unnatural death, who died suddenly without cause being known, or from 'sudden infant death syndrome' or 'cot death', or who died in a prison, or mental institution. At the direction of the Attorney-General, he may also be required to hold an inquest concerning any death;
- concerning the cause of any fire if the Attorney-General has directed, or has approved a request by the owner or insurer of the

property; or at the request of the State Fire Authority or the Rural Fires Board.

The duty of the court is to determine who the deceased was, and the circumstances by which death occurred. Medical practitioners and other persons may be summoned to give evidence. In the case of the death of an infant in a nursing home, the coroner may also inquire generally into the conditions and running of the institution. On the evidence submitted at the inquest, the coroner can order a person to be committed to the Supreme Court and can grant bail. In the case of murder, a coroner can issue a warrant for apprehension.

The coroner, in holding an inquest, usually acts alone, but either the Attorney-General or the relatives of the deceased may request that a four or six-person jury be empanelled. After considering a post-mortem report the coroner may dispense with an inquest, unless the circumstances of death make an inquest mandatory under the Act.

The *Coroners Amendment Act* 1985, which took effect on 21 August 1985, brought forward two significant innovations; the tape recording of depositions to speed up the hearing of inquests, and new provisions dealing with the care, custody and control of exhibits which may prove useful to those persons who need the use of exhibits pending the hearing of inquests or who seek possession of exhibits when the inquest is over.

4.2.3 Commonwealth Courts

The High Court of Australia

The High Court has original jurisdiction under the *Commonwealth of Australia Constitution Act* 1901 in cases concerning treaties, consuls, the Commonwealth of Australia as a party, residents in different States and matters arising under the Constitution.

It is the final court of appeal for Commonwealth and State Courts; it hears appeals from State Supreme Courts and the Federal Court of Australia, and in some circumstances, from the Family Court of Australia.

The Federal Court of Australia

Established in 1976 to replace the former Australian Industrial Court and the Federal Court of Bankruptcy, it sits in two divisions, Industrial and General.

The Family Court

The Family Court of Australia was set up by the *Family Law Act* 1975. It hears petitions for divorce and has jurisdiction in the welfare and custody of children and in disputes as to maintenance and property of marriage. In Tasmania, the Court has two judges, Mr Justice Wood based in Hobart, and Mr Justice Butler located in Launceston.

In 1986, 1 245 divorces were granted, an increase of 76 on the number granted in the previous year. Consistently, about 60 per cent of the petitioners are females.

4.6 DIVORCES GRANTED BY SEX OF PETITIONER

Year	*Males*	*Females*	*Total*
1981	423	716	1 139
1982	542	849	1 391
1983	497	862	1 359
1984	431	754	1 185
1985	450	695	1 169 *(a)*
1986	464	736	1 245 *(b)*

(a) Includes 24 joint applications.
(b) Includes 45 joint applications

4.3 SENTENCES

Statutes creating offences in criminal law often prescribe a penalty for the crime. It is, however, a maximum penalty. The magistrate or judge may exercise discretion in deciding what is appropriate, taking into consideration the particular offender, and the circumstances of the offence.

An early theory of punishment was a concept of retribution, an eye for an eye. Its most severe form is in capital punishment. The death sentence was abolished in Tasmania in December 1968 having last been imposed in 1946.

Punishment has also been regarded as preventive, exercised to avoid further trouble from the offender. In all forms of punishment, deterrence,

4.7 FREQUENCY OF SENTENCES IMPOSED BY TASMANIAN COURTS, 1986 (%)

Penalty	*Children's courts*	*Lower courts*	*Supreme Court*
Detention/ care of Welfare Dept.	15.0	7.6	64.9
Community service order	2.4	4.0	2.8
Recognisance/ bond/probation	15.5	13.9	28.6
Loss/suspension of driver's licence	2.1	16.2	1.1
Fines/compensation	17.6	44.8	2.3
Nominal penalty	42.0	13.6	0.2
Total (no.)	4 766	30 805	1 602

by imposing severe sentences on the offender as an example to the community, is a strong element.

Although fines and terms of imprisonment remain frequently imposed penalties, the modern trend has been toward reforming the offender. This is the basis for such sentences as community service orders, probation, and work orders.

4.3.1 Fines

A fine is the penalty most frequently imposed by the courts. In 1986 fines provided just on 35 per cent of all penalties imposed by all courts, with the majority being handed down by magistrates.

4.8 FINES IMPOSED BY TASMANIAN COURTS, 1986

Offence	*Children's courts*	*Lower courts*	*Supreme Court*
Offences against the person	13	237	8
Breaking and entering, fraud and other offences involving theft *(a)*	65	867	3
Property damage and environmental offences	13	945	–
Offences against good order	379	4614	–
Drug offences	2	939	–
Motor vehicle and traffic related offences	42	4968	3
Other offences	–	32	–
Total	514	12602	15

(a) Includes robbery and extortion.

More than three quarters of all fines imposed related to just two offence categories, motor vehicle offences and offences against good order.

Most fines imposed are for amounts of less than $100; almost 67 per cent of fines in 1986. Only five per cent of fines are for amounts in excess of $250.

4.3.2 Imprisonment

Tasmania's main prison is at Risdon, near Hobart, which has, as an outstation, a prison farm at Hayes in the Derwent Valley. A prison at the Police Headquarters building in Launceston is a temporary holding centre where prisoners are held prior to being transferred to Risdon.

Approximately 96 per cent of people sentenced to gaol are males. In 1985–86, 665 prisoners were received comprising 637 males and only 28 women. Of the male prisoners received around 25–30 per cent were aged 20 years or under. The age group 21–24 normally accounts for a further 25 per cent of male prisoners received while around 20 per cent are in the age range 25–29 years. For women, ages up to 24 years normally make up about half the females received into prison.

However, there was a total of 729 imprisonments, the total number of admissions to prison, during the period. A number of prisoners, almost entirely males, therefore had more than one prison sentence during the year.

4.9 IMPRISONMENTS, TASMANIA, 1985–86

Age (years)	*Imprisonments*	
	Males	*Females*
Under 19	99	7
19, 20	112	4
21–24	155	7
24–29	132	7
30–34	76	2
35–39	46	3
40 and over	72	6
Not known	1	–
Total	693	36

Half the people sentenced to gaol had been imprisoned in previous years. Of the 332 people (50 per cent) with previous prison sentences, 46 per cent had been to prison at least three times before.

4.10 IMPRISONMENTS BY MOST SERIOUS OFFENCE, TASMANIA, 1985–86

Most serious offence (a)	*Imprisonments*	
	Number	*Per cent*
Offences against the person	96	13.2
Robbery and extortion	8	1.1
Breaking and entering, fraud and other offences involving theft	241	33.1
Property damage and environmental offences	17	2.3
Offences against good order	129	17.7
Drug offences	33	4.5
Motor vehicle, traffic and related offences	203	27.8
Other offences	2	0.3
Not known	–	–
Total	729	100.0

(a) Where a prisoner is sentenced for more than one offence, the most serious offence has been counted. This is the offence resulting in the longest sentence.

The biggest proportion of imprisonments was for breaking and entering, fraud and other offences involving theft. Offences relating to motor vehicles and traffic were also relatively high.

Only a small proportion (about 10 per cent) of gaol sentences is for periods of one year or more. In 1985–86 five persons received life sentences, all for homicide offences. Most prison sentences were for a period of one to three months.

4.11 LENGTH OF SENTENCES, TASMANIA, 1985–86

Length of sentence	*Percentage of imprisonments*
Life	0.7
10 years or more	0.7
5 to under 10 years	0.3
2 to under 5 years	3.6
1 to under 2 years	6.7
6 months to under 1 year	16.6
3 months to under 6 months	23.3
1 month to under 3 months	25.8
8 days to under 1 month	14.5
7 days or less	7.8

4.3.3 Probation and Parole

Although fines and imprisonment are the most common sentences for offences, there has been a growing view that harsh punishments are not necessarily effective in reducing offences. The result is a growing move towards imposing custodial sentences that aim to reform the offender such as probation orders with supervision, and work orders. In Tasmania, the Probation and Parole Service is responsible for administering these sentences.

The service has a total complement of 55 permanent officers, 36 of whom are field officers. The remainder are Work Order Co-ordinators, clerical and support staff. The head office is at Hobart and histrict offices are located at Burnie and Launceston. Branch offices are to be found at Glenorchy, Rosny Park, Gagebrook, Georgetown, Devonport and Queenstown. Smaller offices, manned on a part-time basis have been established at New Norfolk, Huonville, Scottsdale, Ulverstone and Railton.

The Service works closely with officers of the Mental Health Services Commission, the Department of Community Welfare, the Prison Service and the Police. It is essentially a community-based operation involving close liaison with families, private relief agencies, public departments concerned with human problems and law enforcement. While there is a significant component of welfare work involved, the Service conducts over 200 prosecutions annually against persons failing to discharge satisfactorily, the conditions and obligations set down in their Supervision or Work Orders.

As at 30 June 1987, 1 525 persons were subject to supervision orders, and 344 persons were discharging their work orders. For the year 1985–86, the Service prepared 1 202 court reports and 65 pre-release reports for the Parole Board. Of the total supervision case-load, approximately 13 per cent (204) were females and 4 per cent (59) were parolees. Over recent years the total case load has been fairly stable.

4.12 PROBATION AND PAROLE SUPERVISED CASES AND WORK ORDERS, TASMANIA

Year ended 31 December	*New cases*	*Completed*	*Under supervision 31 December*
		Probation and Parole	
1983	1 143	1 041	1 582
1984	1 111	1 071	1 616
1985	1 083	1 114	1 576
1986	1 015	1 040	1 521
1987	1 056	1 037	1 514
		Work Orders	
1983	672	636	(*a*) 366
1984	690	616	(*a*) 400
1985	688	610	(*a*) 433
1986	712	641	(*a*) 348
1987	705	596	(*a*) 356

(*a*) Includes absconders

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PUBLIC FINANCE

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Chapter 5

PUBLIC FINANCE

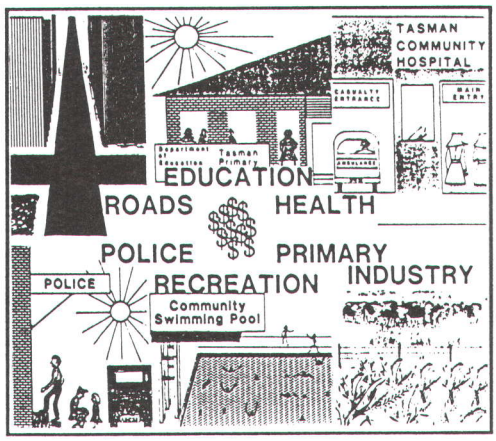
With Australia politically organised as a Federation, the collection of public revenue and the expenditure of public money are undertaken by three spheres of government; commonwealth, state governments and instrumentalities and local government authorities.

In 1985–86 total current and capital expenditure, by state and local government in Tasmania, was $1736.6 million, nine per cent above that of the previous year. Half this total was outlaid on the provision of goods and services such as health, education, and public order and safety. Of the remaining outlays, expenditure on new fixed assets accounted for 26 per cent of the total with interest payments accounting for 17 per cent.

5.1 STATE AND LOCAL GOVERNMENT EXPENDITURE, TASMANIA ($ million)

Expenditure item	*1983–84*	*1984–85*	*1985–86p*
Current expenditure —			
Provision of goods and services	705.9	779.7	867.2
Interest payments	250.7	265.0	295.2
Subsidies paid	33.9	37.2	35.3
Current grants	35.1	42.5	47.8
Other	18.2	18.2	19.8
Total	1 043.8	1 142.6	1 265.3
Capital expenditure —			
Expenditure on new fixed assets	352.0	428.8	444.3
Expenditure on second-hand fixed assets	–5.7	–5.7	–7.2
Increase in stocks	1.6	5.7	2.5
Expenditure on land and intangible assets	5.1	5.6	3.0
Grants to private and public enterprises	0.3	1.7	1.6
Advances to the private sector	10.2	14.2	27.1
Total	363.3	450.4	471.3
Total current and capital outlays	1 407.1	1 593.0	1 736.6

There are three major sources of funding for government outlays — revenue, grants and financing transactions (for example, borrowings and reductions in investments and currency holdings).



In 1985–86 commonwealth government grants continued to be the major source of funds (57 per cent of revenue and grants) for Tasmanian state and local government income with the other significant sources being taxes, fees and fines (22 per cent) and net operating surpluses of public trading enterprises (15 per cent). Of all the States and the Northern Territory, Tasmania was second only to the Northern Territory (83 per cent of revenue and grants) in its reliance on commonwealth grants as a major source of funds. NSW and Victoria were the least dependent on commonwealth grants (45 per cent of revenue and grants) with the average for all States and the Northern Territory being 48 per cent.

5.2 STATE AND LOCAL GOVERNMENT INCOME, TASMANIA ($ million)

Income item	*1983–84*	*1984–85*	*1985–86p*
Revenue and grants received —			
Taxes, fees and fines	242.5	287.3	318.3
Net operating surpluses of public trading enterprises	164.8	194.3	217.1
Property income	74.9	76.8	88.9
Other revenue	2.7	3.4	5.1
Grants from the Commonwealth Government	765.5	818.2	824.6
Total	1 250.4	1 380.0	1 454.0
Financing transactions —			
Advances from the Commonwealth Government	59.2	54.6	52.9
Net borrowing			
State public trading enterprises	130.0	142.1	150.0
State general government	2.6	18.3	43.3
Local authorities	–0.6	2.4	3.2
Decrease in investments	–30.3	17.0	–0.5
Decrease in currency and deposits	–26.0	–49.8	–4.0
Increase in provisions	23.2	21.5	32.9
Other	–1.4	6.9	5.0
Total financing transactions	156.7	213.0	282.8

Whilst the percentage contribution of commonwealth government grants to revenue declined during the period 1983–84 to 1985–86, the contributions from taxes, fees and fines and public trading enterprises remained relatively static during the same period. In 1985–86 the resulting shortfall, for the funding outlays, was made up by increased reliance on borrowings and by using depreciation reserves created by public trading enterprises.

5.1 STATE GOVERNMENT FINANCE

State government financial transactions are split between the general government sector and public trading enterprises. The general government sector provides goods and services (for example health, education and law and order) free of charge or at a cost which is significantly below their cost of production. Public trading enterprises aim to recover all or most of their operating costs.

5.1.1 General Government

The major areas of current and capital outlay showed little change as a percentage of total outlays during the period 1983–84 to 1985–86. Provision of goods and services (60 per cent of total outlays), expenditure on new fixed assets (13 per cent of total outlays) and interest payments (12 per cent of total outlays) continued to account for the majority of funds outlaid on current and capital expenditure in 1985–86.

5.3 GENERAL GOVERNMENT EXPENDITURE, TASMANIA ($ million)

Expenditure item	*1983–84*	*1984–85*	*1985–86*
Current expenditure —			
Provision of goods and services	655	724	801
Interest payments	144	157	164
Subsidies paid	34	37	35
Personal benefit payments	19	18	20
Current grants	59	66	74
Total	910	1 003	1 094
Capital expenditure —			
Expenditure on new fixed assets	141	157	169
Expenditure on second-hand fixed assets	–4	–5	–2
Expenditure on land and intangible assets	6	6	3
Capital grants to public trading enterprises	13	88	48
Capital grants to local government	8	8	11
Capital grants to other sectors	–	2	2
Advances to public trading enterprises	19	1	–4
Advances to local government	1	–	2
Advances to other sectors	14	18	24
Total	199	274	252
Total current and capital outlays	1 109	1 277	1 346

5.4 GENERAL GOVERNMENT INCOME, TASMANIA ($ million)

Income item	*1983–84*	*1984–85*	*1985–86*
Revenue and grants received —			
Taxes, fees and fines	188	227	254
Income from public trading enterprises	4	5	6
Income from state public financial enterprises	2	2	3
Interest —			
Public trading enterprises	74	76	81
Other sectors	30	29	31
Other property income and other revenue	30	32	39
Grants received	765	819	820
Total	1 092	1 190	1 233
Financing transactions —			
Net advances received	54	55	53
Net domestic borrowing	3	18	43
Increase in provisions	2	2	–
Other	–44	12	16
Deficit (financing transactions less increase in provisions)	14	85	112

The major source of funds for the general government sector is commonwealth government grants (67 per cent of all revenue and grants received in 1985–86) with taxes, fees and fines being the other major sources of funds (21 per cent in 1985–86).

Even though grants are the main revenue item for the general government sector, their percentage contribution to total income fell significantly during the period 1983–84 to 1985–86 (70 per cent in 1983–84 to 67 per cent in 1985–86). This shortfall was made up in part by increased tax collections and a greater reliance on borrowing (19 per cent of financing transactions in 1983–84 as compared with 38 per cent in 1985–86).

Current Expenditure

Government expenditure on the provision of goods and services (known as final consumption expenditure) comprises current expenditure on wages, salaries and supplements, and goods and services other than fixed assets and stocks. Fees, and other charges for goods and services rendered are offset against purchases.

In 1985–86 education and health continued to be the largest areas of current expenditure, accounting for 38 per cent and 25 per cent respectively (39 per cent and 25 per cent in 1984–85) of total current expenditure for the year. With the exception of general public services, the distribution of current expenditure remained relatively static during the period 1983–84 to 1985–86. Although expenditure on general public services (costs associated with legislative and executive branches of government, superannuation payments etc.) accounted for only two per cent of expenditure in 1985–86, it accounted for 28 per cent of the total increase in current expenditure between 1984–85 and 1985–86. The major contributing factor to this increase was a total payout from the parliamentary superannuation scheme of almost $5.6 million for lump sum superannuation payments. There were no lump sum payments from the scheme during the 1984–85 financial year.

5.5 GENERAL GOVERNMENT: CURRENT EXPENDITURE ($ million)

Expenditure item	*1983–84*	*1984–85*	*1985–86*
General public services	62.0	71.4	93.2
Public order and safety	55.2	56.6	61.5
Education —			
Primary and secondary	150.1	161.7	168.8
Tertiary	71.8	76.6	83.7
Other	43.7	45.5	48.7
Health	151.0	184.5	199.9
Social security and welfare	10.7	11.8	12.6
Housing and community amenities	4.2	4.1	6.8
Recreation and culture	16.5	19.0	21.0
Agriculture, forestry, fishing and hunting	34.2	37.4	40.5
Mining, manufacturing and construction	13.6	14.2	15.6
Transport and communications	21.6	23.2	23.9
Other	20.1	17.7	25.1
Total	654.8	723.7	801.3

Capital Expenditure

In the general government sector the major areas of expenditure on new fixed assets in 1985–86 were transport and communications (44 per cent of total expenditure), education (22 per cent of total expenditure) and recreation and culture (8 per cent of total expenditure).

Of the $74.6 million spent on transport and communications in 1985–86, $71.8 million was spent on the construction of roads and bridges (including $4 million on Hobart's second bridge) and $1.6 million on the purchase of equipment with the balance being spent on the construction of jetties.

Almost all of the capital expenditure on education was devoted to the extension of facilities at existing schools and colleges with some of the more significant outlays being for the Launceston Community College ($3.2 million), Sorell District High School ($2.1 million) and Ulverstone High School ($1.6 million). A new school was also built at Exeter at a cost of $1.2 million.

In the recreation and culture sector the major outlay was on the Tasmanian Centre for the Arts ($4.4 million) with $2.4 million being allocated to the State Library.

Other significant outlays were the redevelopment of the Mowbray race course ($0.8 million) and the restoration of the stage area of the Theatre Royal ($0.8 million).

5.6 GENERAL GOVERNMENT: CAPITAL EXPENDITURE ($ million)

Expenditure item	*1983–84*	*1984–85*	*1985–86p*
General public services	6.5	8.3	8.1
Public order and safety	2.6	3.6	7.9
Education —			
Primary and secondary	15.1	17.5	26.2
Tertiary	6.1	4.8	7.3
Other	6.2	7.2	3.9
Health	10.2	8.4	8.4
Social security and welfare	0.5	0.4	0.3
Housing and community services	0.8	0.6	0.2
Recreation and culture	4.8	8.2	14.1
Electricity and other energy	15.7	9.3	6.7
Agriculture, forestry, fishing and hunting	5.0	8.4	5.8
Mining, manufacturing and construction	0.3	0.3	0.3
Transport and communications	59.7	71.2	74.6
Other	7.9	8.8	5.7
Total	141.4	157.0	169.5

Of the remaining sectors the only one to show a significant increase in capital expenditure, during 1985–86, was public order and safety. In that year $3.4 million was spent on the construction or redevelopment of a number of police stations, including $0.9 million on the initial stages of the new Hobart Police Headquarters.

5.1.2 Public Trading Enterprises

The major difference between public trading enterprises and the general government sector is the degree to which public trading enterprises are able to fund current and capital outlays from their own revenue sources. In 1985–86 commonwealth government grants funded only 11 per cent of total outlays for public trading enterprises (compared with 61 per cent of outlays for the general government sector) whereas revenue funded 50 per cent (31 per cent for general government). Of the remainder, 36 per cent was primarily funded by domestic borrowings.

During the period 1983–84 to 1985–86 sufficient revenue was generated to meet outlays with borrowings being used primarily to fund capital expenditure on new fixed assets.

Public Trading Enterprises

Housing Department
Cressy–Longford Irrigation Scheme
The Government Printer
Hydro-Electric Commission
Southern Regional Cemetery Trust
Burnie Port Authority
Marine Board of Circular Head
Port of Devonport Authority
Marine Board of Flinders
Marine Board of Hobart
The Marine Board of King Island
Port of Launceston Authority
Metropolitan Transport Trust
Hobart Regional Water Board
North Esk Regional Water Supply
North-West Regional Water Authority
Prosser River Water Scheme
The Public Trustee
Stanley Cool Stores Board
Tasmanian Grain Elevators Board
Herd Improvement Board of Tasmania
Tasmanian Museum and Art Gallery
Tasmanian Totalisator Agency Board
Transport Tasmania
West Tamar Water Supply
Western Creek and Dale Brook Improvement Scheme

The variation in grants received in the period 1984–85 to 1985–86 derives from the method of allocating dam compensation funds during that period. In particular, almost all of the allocation due in 1983–84 was not actually received until 1984–85.

5.7 PUBLIC TRADING ENTERPRISES: EXPENDITURE AND INCOME, TASMANIA ($ million)

Item	*1984–85*	*1985–86*
Current expenditure —		
Interest payments	178	195
Income transferred to general government	5	6
Total	184	200
Capital expenditure —		
Expenditure on new fixed assets	233	229
Expenditure on second-hand fixed assets	–	–3
Increase in stocks	6	2
Capital transfer payments	9	13
Advances to local government	–	–
Advances to other sectors	–4	3
Total	245	245
Total current and capital expenditure	429	445
Revenue and grants received —		
Net operating surpluses	174	196
Interest received	22	23
Other property income and other revenue	1	2
Grants received	88	48
Total	285	270
Financing transactions —		
Net advances received	2	–4
Net domestic borrowing	106	160
Net borrowing from abroad	41	–1
Increase in provisions	19	31
Other financing transactions	–25	–10
Total	143	175
Deficit (Financing transactions less increase in provisions)	124	144

The largest public trading enterprise in Tasmania is the Hydro-Electric Commission. In 1985–86, 70 per cent of the $229 million spent on new fixed assets for public trading enterprises was for electricity and other energy production. Of the $159.4 million spent by the Hydro-Electric Commission, $110.7 million was spent on the creation of new power developments; $35.9 million on the Pieman River power development, $26.9 million on the Anthony power development and $47.9 million on the King River power development. Of the remaining $48.7 million some of the more significant outlays included extensions to the Gordon River system ($13 million), Distribution Branch retail reticulation ($11 million), stores and general plant ($7 million), and development of power stations and reticulation systems for the Bass Strait islands ($4.3 million).

Capital funds allocated to housing have declined, both in terms of the percentage of total expenditure and in actual money amounts. The significant increase in outlays for the transport and communications sector, in 1984–85, was caused by the purchase and refitting of the 'Abel Tasman' ($34.6 million). The other significant increase in capital expenditure, in 1985–86, was for the agriculture, forestry, fishing and hunting sector with the bulk of the $7.1 million outlaid being for the construction of the Craigbourne Dam.

5.8 PUBLIC TRADING ENTERPRISES: CAPITAL EXPENDITURE ($ million)

Expenditure item	*1984–85*	*1985–86p*
Housing and community services —		
Housing and community development	41.3	36.7
Water supply	8.3	4.5
Recreation and culture	0.4	0.7
Electricity and other energy	133.6	159.4
Agriculture, forestry, fishing and hunting	0.1	7.1
Transport and communications —		
Road transport	7.0	4.2
Water transport	41.0	10.6
Other	0.4	5.3
Other	1.0	.6
Total	233.2	229.1

5.2 COMMONWEALTH–STATE FINANCIAL RELATIONS

Commonwealth–State financial relations fall into three major categories:

- financial assistance from the Commonwealth budget as general purpose or specific purpose payments, payments for recurrent or capital purposes, and grants or advances;
- Commonwealth borrowings on behalf of the States; and
- the determination, by the Australian Loan Council, of the level of borrowings, by States, that can be undertaken each financial year.

Since Federation, a number of institutions have evolved for the management of Commonwealth–State financial relations.

5.2.1 Premiers' Conference

Although final allocations to the States are made at the discretion of the Commonwealth, the amount of general revenue assistance for the following financial year to each State is subject to negotiation at an annual Premiers' Conference which is usually held in May of each year.

5.2.2 Australian Loan Council

Under the 1927 Financial Agreement, the Australian Loan Council has the responsibility for determining the level of borrowings which the Commonwealth can undertake on behalf of the States. Borrowings by State authorities (semi-government and local government authorities, government-owned companies and trusts) are not subject to the Financial Agreement, although the Loan Council approves the annual borrowing programs of these authorities.

5.2.3 Commonwealth Grants Commission

Under the *Commonwealth Grants Commission Act* 1973, the Commission is required to investigate any application made by a State or the Northern Territory for financial assistance, to enable that State (or the Northern Territory) to function at a standard similar to the other States. In most instances the level of payments made to individual States is based on per capita (that is, a fixed amount per head of population) relativities, which are periodically reviewed by the Commonwealth Grants Commission.

In 1985–86 and 1986–87 Tasmania received further budgetary assistance of $31.1 million and $13 million respectively. These payments were made in recognition that reduced per capita payments for Tasmania for those years, would have a significant financial impact on the State. These special payments were designed to help Tasmania adjust to the per capita relativities agreed upon for the triennium commencing 1985–86.

5.9 PER CAPITA RELATIVITIES — TAX SHARING GRANTS (*a*)

State	*1983–84*	*1984–85*	*1985–86 (b)*
NSW	1.019	1.018	1.008
Vic.	1.000	1.000	1.000
Qld	1.485	1.535	1.416
SA	1.476	1.455	1.455
WA	1.457	1.373	1.397
Tas.	1.759	1.646	1.605

(*a*) Financial Assistance Grants as from the commencement of the 1985–86 financial year.
(*b*) Per capita relativities were last reviewed in 1985 and the renewed relativities were applied for the triennium commencing 1985–86.

5.3 LOCAL GOVERNMENT FINANCE

In classifying local government financial transactions it is useful to distinguish between ordinary services and trading activities. Trading activities are grouped separately because they are operated in a commercial manner, rather than as a 'service' such as parks and gardens. The only activities classified as 'trading activities' are water supply, sewerage and abbatoirs (no abbatoirs are presently being operated by local government authorities). All other activities, such as garbage and waste disposal facilities, roads and foot paths, drainage, health inspection, parks, recreation facilities, gardens, cemeteries, and community centres are classified as ordinary services.

5.3.1 Receipts and Outlays

The principal source of revenue for local government authorities is rates (54 per cent of revenue and grants received in 1985–86). These are direct charges to owners of property, based on the gross annual income the owner might obtain by letting the land and its fixtures. Valuations are carried out by the Land Valuation Branch of the State Lands Department on a rotational basis with each property being valued every five years.

5.10 TOTAL PROPERTY VALUATION, TASMANIA ($ million)

Year (at 1 July)	*Total capital value*	*Assessed annual value*	*Land value*
1982	7702.0	480.4	2597.5
1983	8177.9	524.7	2781.5
1984	8788.3	589.7	2985.1
1985	9511.2	667.0	3207.6
1986	10 271.9	720.3	3464.8

Unlike the general state government sector the local government sector does not rely heavily on commonwealth government grants (67 per cent and 20 per cent respectively of total revenue and grants received in 1985–86). In 1985–86 rates and other charges funded 70 per cent of total outlays with grants and loans being used primarily to fund capital expenditure.

In 1985–86 internal revenue for ordinary services, amounting to $104 million, funded 97 per cent of total current expenditure while

5.11 LOCAL GOVERNMENT INCOME, TASMANIA, 1985–86 ($ million)

Income item	*Ordinary services*	*Trading activities*	*Total*
Revenue and grants received —			
Municipal rates	60.4	51.5	111.9
Interest	11.8	–	11.8
Other revenue	31.8	11.5	43.3
Grants from the Commonwealth	35.7	6.1	41.8
Total	139.7	69.1	208.8
Financing transactions —			
Loans	10.5	5.8	16.3
Other	–	7.0	7.0
Total	10.5	12.8	23.3

internal revenue for trading activities actually exceeded current expenditure by $9.7 million.

For both the ordinary services and trading activities sectors of local government, capital expenditure in 1985–86 was devoted entirely to the acquisition of land and fixed assets (86 per cent and 74 per cent respectively of total capital expenditure) and debt redemption (14 per cent and 26 per cent respectively of total capital expenditure).

5.12 LOCAL GOVERNMENT EXPENDITURE, TASMANIA, 1985–86 ($ million)

Expenditure item	*Ordinary services*	*Trading activities*	*Total*
Current expenditure —			
Goods and services	92.6	42.7	135.3
Interest payments	8.9	10.6	19.5
Levies	3.1	–	3.1
Other	2.5	–	2.5
Total	107.1	53.3	160.4
Capital expenditure —			
Land and fixed assets	38.0	11.8	49.8
Debt redemption	6.4	4.1	10.5
Total	44.4	15.9	60.3

5.4 PUBLIC DEBT

5.4.1 State Government Debt

State government debt is the aggregate of loans, taken out on behalf of the Tasmanian Government, which still have to be redeemed. Under the Financial Agreement of 1927, the Loan Council became the borrowing agent for the States. The redemption and conversion of loans is carried out by the National Debt Sinking Fund Commissioners for, and on behalf of, all of the States under the provisions of the Financial Agreement of 1927.

At 30 June 1986 state government public debt stood at $1.246 million, an increase of 3.8 per cent over the previous year. In addition to the public debt, certain statutory authorities have raised loans throughout Australia and overseas. The balance of these loans, at 30 June 1986, was $141.1 million.

5.13 STATE PUBLIC DEBT, TASMANIA ($ million)

At 30 June	*Amount ($ million)*	*Increase over previous year (%)*	*Debt per head of mean population ($)*
1982	1071.6	5.0	2500
1983	1114.4	4.0	2585
1984	1154.5	3.6	2653
1985	1200.7	4.0	2728
1986	1246.3	3.8	2803

(*a*) Mean resident population as at 30 June.

During the period 30 June 1982 to 30 June 1986 Tasmania's public debt rose from $2500 per head of population to $2803 per head of population, a rise of 12 per cent over the four year period. The annual interest liability on this debt increased 5.6 per cent to reach $141.1 million at 30 June 1986.

5.4.2 Local Government Debt

The principal source of funds used to finance new capital works programs of local government is external borrowing, although some of the larger authorities do finance a substantial part of such activity from internal reserves and revenue

5.14 LOCAL GOVERNMENT LONG-TERM DEBT, TASMANIA ($'000)

Details	*1984–85*	*1985–86*
Source —		
Commonwealth–State	11 374	12 309
Public subscriptions	1 299	855
Financial institutions	163 034	166 954
Other	881	1 271
Total	176 588	181 389
Purpose —		
Ordinary services	85 623	88 658
Water	20 598	20 383
Sewerage	70 368	72 349
Total	176 588	181 389

sources. At the end of 1985–86, total indebtedness of local government authorities was $181.4 million. Ninety two per cent of this debt was owed to financial institutions such as banks and insurance companies.

5.5 STATE AND LOCAL GOVERNMENT TAXATION

In 1985–86 taxes, fees and fines for both levels of government in Tasmania, were $723 per head of mean population. With the exception of the Northern Territory, this was the lowest of all the states, NSW having the highest level of taxation ($1 033 per head). The average of all the States was $944 per head of mean population.

Nevertheless, in the two-year period ended 1985–86 Tasmania's taxation per head of mean population rose by 28.7 per cent, second only to the Northern Territory (45.6 per cent). This was well ahead of the all-States' average rise of 19 per cent.

5.15 TAXES, FEES AND FINES PER HEAD OF MEAN POPULATION ($)

State/Territory	1983–84	1984–85	1985–86
New South Wales	876	948	1 033
Victoria	886	980	1 066
Queensland	640	701	736
South Australia	654	762	807
Western Australia	713	802	846
Tasmania	562	659	723
Northern Territory	485	566	706
All States	793	874	944

The principal source of state taxation is employer-based payroll taxes which accounted for 31 per cent of total state government tax collections in 1985–86. Other major contributors to State revenue in 1985–86 were franchise taxes on petroleum products, tobacco and liquor (17 per cent), taxes on property (16 per cent excluding municipal rates) and motor vehicle taxes (15 per cent).

Of the major taxes, franchise taxes increased the most as a percentage of total state government tax collected between 1984–85 and 1985–86. Employers' payroll taxes also increased slightly while taxes on property remained static. Motor vehicle taxes, however, decreased in terms of their percentage contributions to total state government revenue.

5.16 TAXES, FEES AND FINES COLLECTED, TASMANIA ($ million)

Tax	*1984–85*	*1985–86*
Employers' payroll taxes	68.4	79.9
Taxes on property —		
Municipal rates	57.4	61.3
Other	37.2	41.3
Total	94.6	102.6
Taxes on provision of goods and services —		
Excises	6.7	7.1
Taxes on gambling	26.4	24.3
Taxes on insurance	9.3	9.7
Total	42.4	41.2
Taxes on use of goods and performance of activities —		
Motor vehicle taxes	37.3	39.7
Franchise taxes —		
Petroleum products	13.6	17.3
Tobacco franchise taxes	14.2	19.1
Liquor franchise taxes	6.7	7.7
Total	71.8	83.8
Fees and fines	12.4	14.1
Total taxes, fees and fines —	289.5	321.5
State Government	228.8	256.8
Local Government	60.7	64.7

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POPULATION

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Chapter 6

POPULATION

6.1 TASMANIA'S POPULATION

The first sixty years of white settlement saw a fairly rapid population build-up, more than half of whom were, or had been, convicts. Although this rate of increase then diminished, by 1905 — 45 years later — the number of people had again doubled. With a birth rate of less than one per cent to 1945, it took another 65 years to double again. At the Census conducted on 30 June 1986 there were 436 353 people counted in Tasmania. After adjusting for persons interstate and overseas and census undercounting, the estimated resident population in Tasmania was 446 500.

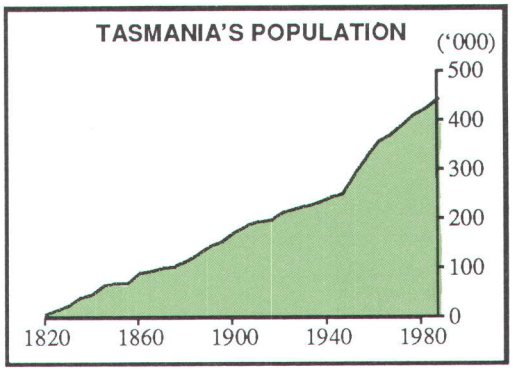
6.1.1 Historical

The first human inhabitants of what is now Tasmania arrived about 25 000 years ago, crossing the land bridge that then connected Tasmania to the mainland. They settled in tribal groups across the whole island. Total numbers, before white settlement, have been estimated to have never exceeded 5 000.

White settlement began in 1803 to secure British strategic interests against the French. Tasmania was settled as a gaol and this largely governed the way the colony was run. Most of the population were convicts or government officials. Famine was not unknown and the hand-to-mouth existence of the colony required accurate population counts. Musters of the convicts were held weekly, on Sunday after divine service, at which time the convicts would receive their weekly ration. A general muster for the whole population was held monthly until 1813, when an annual muster was introduced.

Immigration to Tasmania in the early years was mostly involuntary. Originally, convicts were sent from Sydney but from 1819 onwards direct shipments began from England.

Settlement was initially confined to Hobart and Launceston and surrounding districts. The gentry — farmers, using convict labour — found profitable occupations in growing wool or providing the Sydney market with its grain. Whaling and sealing and associated activities also provided employment. However, the colonial economy



was kept afloat by the heavy expenditure of the Imperial Government on the prison establishment.

Increasing numbers of convicts arrived from England, reaching a peak in the 1840s when over 5 000 arrived in one year. By the time transportation was abolished in 1853, 65 000 of the 150 000 convicts transported to Australia had been sent to Tasmania; over 80 per cent of them were male. At the census of 1847, just over 50 per cent of the total population of 70 000 people were, or had been, convicts. Less than 20 per cent were free immigrants.

The 1850s saw a change of direction for Tasmania. The abolition of transportation not only led to the fall off in the number of people arriving but also to a reduction in government spending. The gold boom in Victoria drew many

people away from the colony. The export trade collapsed as economic development on the mainland led to replacement of commodities once supplied by Tasmania. The wool industry, the only export industry to maintain some vigour, had to contend with sharply falling prices. Population growth slumped as the high rate of natural increase was partially offset by emigration to the mainland.

The mining boom, sparked off by the discovery of tin at Mt Bischoff and of gold at Beaconsfield in the early 1870s, provided a turning point for the economy. Railway construction quickened the pace of growth. Population began to spread beyond the Launceston–Hobart axis. The north-west farmers, who had begun to settle the area in the 1850s, found new markets on the mainland for their potatoes. Butter factories followed the growth of dairying, though mainly supplying the local market. The provision of timber to the quickly-growing mainland cities was also an important industry. The settlement of the Huon was associated with the development of the apple industry. Further impetus was given to this industry by the advent of refrigerated shipping and in 1891 the first apples were exported to Britain.

The economic growth in the 1870s and 1880s was reflected in a rapidly increasing population with immigrants, including Chinese, seeking wealth in Tasmania. The 15 years between 1861 and 1876 saw the population increase from 90 000 to 105 000 or little over one per cent a year. The fifteen years, 1876 to 1891, saw the population reach 147 000, an annual rate of increase more than double the previous period.

The economic depression of the 1890s, brought on by a fall in prices of export commodities and a drying up of overseas investment, while severe, had less effect than in other States. Conditions were ameliorated by a new mining boom, centred on silver finds at Zeehan and copper at Mt Lyell. At its peak in the late 1890s, the West Coast towns had a population in excess of 20 000. Tasmania's relative prosperity was reflected in a net immigration in excess of 4 000 a year from 1896 to 1899.

Federation brought both advantages and disadvantages to Tasmania. While primary produce such as potatoes, fruit, hops, timber, butter and jam had freer access to mainland markets, many small manufacturers faced competition from mainland firms. The West Coast mining boom petered out; by 1911 less than 14 000 people lived in the Lyell and Zeehan districts. Economic stagnation was reflected in a drift of people to the mainland.

Harnessing water resources for electricity generation came to be seen as the way out of the economic bind that Tasmania found itself in. The Electrolytic Zinc Co. was the first of many industries attracted to Tasmania by the prospect of cheap electric power. However, this was not

6.1 POPULATION IN URBAN CENTRES AND LOCALITIES, TASMANIA

Town	*1986*	*Town*	*1986*
Beaconsfield	1 064	New Norfolk	6 152
Beauty Point	1 064	Oatlands	514
Bicheno	661	Penguin	2 801
Bridgewater	8 654	Perth	1 352
Bridport	980	Pontville	962
Burnie–Somerset	20 665	Port Sorell	1 173
Campbell Town	867	Queenstown	3 593
Cressy	630	Railton	906
Currie	794	Richmond	693
Cygnet	832	Rosebery	2 102
Deloraine	1 997	St Helens	1 149
Devonport	22 645	St Marys	668
Dodges Ferry	1 091	Savage River	1 058
Evandale	723	Scottsdale	1 983
Geeveston	753	Seven Mile Beach	847
George Town	5 315	Sheffield	934
Gravelly Beach	583	Snug	714
Hadspen	1 089	Sorell–Midway Point	2 882
Hobart	127 106	Stanley	588
Huonville–Ranelagh	1 305	Triabunna	883
Kingston–Blackman's Bay	10 932	Tullah	1 117
Latrobe	2 578	Turners Beach	900
Lauderdale	2 353	Ulverstone	10 055
Launceston	66 286	Westbury	1 222
Legana	1 237	Wynyard	4 705
Longford	2 437	Zeehan	1 610

sufficient to alleviate the economic gloom of the 1920s and 1930s. Recession particularly afflicted rural industries, with the slump in agricultural export prices predating the onset of general economic depression.

In the 35 years between 1910 and 1945, Tasmania's population grew at only 0.7 per cent a year, well under half the rate achieved in the previous 35 years. Improved standards of public health, which brought a decline in both the general death rate and in infant mortality, was offset by a declining birth rate and continued movement of Tasmanians interstate.

Since World War Two, Tasmanians have shared in the prosperity of the Australian economy. The rapid expansion of government services and the growth of the manufacturing industry, particularly along the North-West Coast, provided jobs. Despite the decline in rural employment due to mechanisation of many rural activities, farmers enjoyed a prosperity unknown before the war. In the 1960s and 1970s mining re-emerged as a growth sector in the Tasmanian economy. Tourism became a major sector in the 1970s. Despite this growth, Tasmania still tended to lag behind the mainland States with the number of overseas immigrants attracted to Tasmania being far less in proportion than other States. The non-British born migrants tended to be of northern rather than southern European origin. This pattern has resulted in Dutch and German born people forming the two largest non-British born migrant groups recorded at the 1981 Census for Tasmania.

The post-war baby boom and the significant net migration gain contributed to an average annual population increase of 1.5 per cent in the two per cent over the same period. As a result, the proportion of the total Australian population living in Tasmania has decreased from 3.4 per cent in 1945 to 2.8 per cent in 1987.

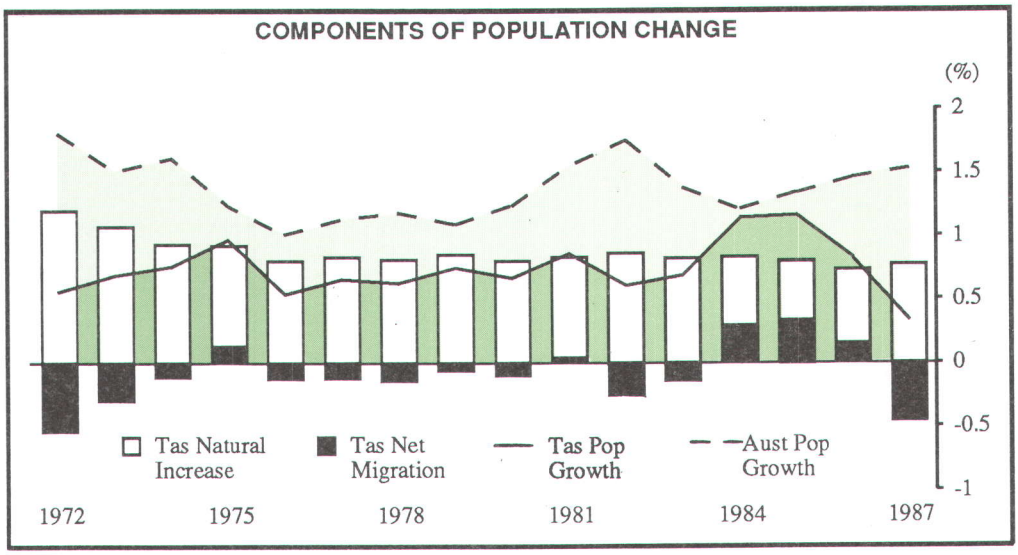
6.1.2 Population Growth 1972–1987

Tasmania's rate of population growth lags behind that of Australia as a whole, and of all the States Tasmania records the lowest annual growth rate.

6.2 POPULATION CHANGE BY STATE, AUSTRALIA, 1986–1987 (%) *p*

States and Territories	*Natural increase*	*Migration*	*Growth*
NSW	0.75	0.71	1.46
Vic.	0.73	0.42	1.16
Qld	0.83	1.16	1.99
SA	0.66	0.19	0.84
WA	1.01	1.83	2.84
Tas.	0.79	-0.46	0.33
NT	1.75	0.29	1.46
ACT	1.21	1.58	2.77
Australia	0.79	0.74	1.53

Whilst one of the elements of population growth, natural increase (which represents the excess of births over deaths), shows rates which are comparable with other States, the other element, net migration gain, shows rates which are consistently lower than those of Australia as a whole.



6.3 ESTIMATED RESIDENT POPULATION IN LOCAL GOVERNMENT AREAS, TASMANIA at 30 June

Local government area	*1981*	*1986*	*Annual average rate of change 1981 to 1986 (per cent) (a)*	*1987 (preliminary)*
Greater Hobart — Southern Region	201 060	211 950	1.06	213 500
Hobart	47 890	47 940	0.02	47 880
Glenorchy	41 860	41 820	-0.02	41 720
Clarence	45 550	46 740	0.52	46 790
Brighton	9 640	11 940	4.37	12 240
Kingborough	17 510	21 080	3.78	21 780
New Norfolk	9 800	10 050	0.51	10 040
Sorell	5 420	7 000	5.25	7 280
Bothwell	730	790	1.59	810
Bruny	390	460	3.36	490
Esperance	3 170	3 200	0.19	3 210
Glamorgan	1 490	1 740	3.15	1 770
Green Ponds	1 000	1 100	1.92	1 120
Hamilton	2 570	2 500	-0.55	2 490
Huon	4 860	5 220	1.44	5 350
Oatlands	2 070	2 010	-0.59	1 980
Port Cygnet	2 290	2 790	4.03	2 860
Richmond	1 830	2 150	3.28	2 200
Spring Bay	1 910	2 020	1.13	2 040
Tasman	1 080	1 390	5.18	1 450
Northern Region	117 570	123 850	1.05	124 940
Launceston	61 760	63 210	0.47	63 390
Beaconsfield	14 150	15 840	2.28	16 080
Deloraine	5 020	5 460	1.69	5 580
Evandale	1 960	2 210	2.43	2 230
George Town	7 310	7 120	-0.53	7 030
Longford	5 810	6 400	1.95	6 470
Westbury	6 670	8 020	3.76	8 500
Campbell Town	1 540	1 460	-1.06	1 420
Fingal	2 920	2 880	-0.28	2 860
Flinders	1 090	1 050	-0.74	1 040
Portland	2 130	2 860	6.07	3 030
Ringarooma	2 330	2 270	-0.52	2 230
Ross	530	500	-1.16	490
Scottsdale	4 350	4 560	0.95	4 590
Mersey-Lyell Region	108 570	110 670	0.38	110 660
Burnie	20 400	21 070	0.65	21 110
Circular Head	7 910	8 020	0.28	8 040
Devonport	23 930	25 110	0.97	25 270
Kentish	4 350	4 710	1.60	4 760
King Island	2 720	2 050	-5.50	1 810
Latrobe	5 630	6 220	2.01	6 280
Penguin	5 270	5 450	0.67	5 490
Ulverstone	13 110	14 260	1.70	14 440
Wynyard	12 120	12 560	0.72	12 590
Lyell	3 870	3 940	0.36	3 920
Strahan	440	520	3.40	520
Waratah	2 150	1 630	-5.39	1 580
Zeehan	6 670	5 130	-5.11	4 850

(*a*) Annual average rate of increase or decrease (-) in population over the 5 year period 1981 to 1986.

6.4 POPULATION CHANGE, TASMANIA, 1986-87 (year ended 30 June)

Component of change	*1986*	*1987 p*
Natural increase —		
Births	6976	6976
Deaths	3658	3462
Total	3318	3514
Migration —		
Net overseas	890	795
Net interstate	-138	-2841
Total	752	-2046
Populaton growth —		
Total	4070	1468
Rate (%)	0.82	0.33

In the 16 years 1972 to 1987, only five years (1975, 1981, 1984, 1985 and 1986) show a *positive* rate of net migration gain. The remaining 11 years show *negative* rates of net migration gain. Therefore, more persons left the State to reside than entered in the 12 month period. The negative rate recorded in 1987 would indicate a return to the apparently traditional pattern of emigration of Tasmanians to other States.

In terms of population distribution, Tasmania is the most decentralised State with nearly 60 per cent of the population living outside the capital city statistical division. On a regional basis, the Greater Hobart–Southern Region accounts for just over 47 per cent of the population, the Northern Region almost 28 per cent and the Mersey–Lyell Region almost 25 per cent. These proportions have remained remarkably consistent since 1945.

Results from the 1986 Census have confirmed the movement in population from the inner city local government areas of Hobart, Glenorchy and Launceston. The outer city municipalities of Kingborough, Brighton and Sorell in the South, and Westbury, Beaconsfield and Evandale in the North all had well above average increases. Rural municipalities which are within commuting distance of large urban areas also had significant increases. However, the more removed municipalities of Campbell Town, Hamilton, Oatlands, Ringarooma and Ross all experienced losses in population in the last five years as did the more remote island municipalities of King Island and Flinders, and the west coast mining municipalities of Zeehan and Waratah.

On the East Coast, Portland and Glamorgan municipalities continued to record population increases as a result of an influx of retired persons. Most north-west coast municipalities recorded increases in line with the State average, apart from Latrobe and Ulverstone which showed significantly higher increases.

6.1.3 Characteristics of Tasmanian Residents

The population census of 30 June 1986 classified 438 772 people as usual residents of Tasmania. Of those, 420 552 persons were counted at their home and 18 220, or 4.2 per cent, were counted elsewhere.

Of persons counted at their home, 19.5 per cent, 67 978, had changed their residence in the previous 12 months and 47.2 per cent had moved in the five years since the previous census in 1981. Just under 15 per cent came from interstate, most of whom came from Victoria and New South Wales.

6.5 RESIDENT MOBILITY, TASMANIA, 1986

State or Territory of previous residence	*At 1981*		*At 1985*	
	Number	*Prop'n*	*Number*	*Prop'n*
NSW	6482	4.1	2365	3.5
Vic.	7269	4.6	2922	4.3
Qld	4045	2.6	1856	2.7
SA	2172	1.4	861	1.3
WA	2104	1.3	788	1.2
Tas.	135033	85.2	58577	86.2
NT	611	0.4	300	0.4
ACT	793	0.5	309	0.4
Total	158509	100.0	67978	100.0

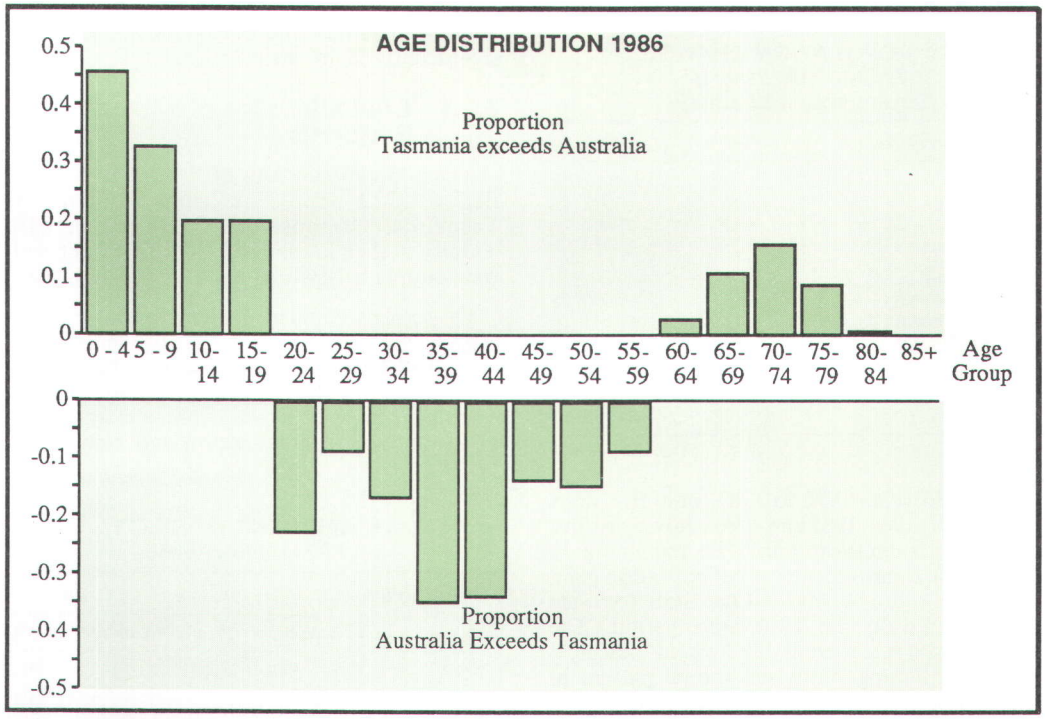
Age

Tasmania's population continues to age as does Australia's. In 1986, the median age (the age where one half of the population is younger and the other half older) of Tasmania's population was 30.5 years, 1.7 years older than in 1981. The median age of all Australians was 31.0 years. Tasmanian males had a median age of 30.0 years and females, 31.1 years.

The age distribution of Tasmania's population has also changed markedly over time, as has the total Australian population.

6.6 AGE DISTRIBUTION, (%)

Region	*Under 15 years*	*65 years and over*
1901 — Tasmania	37.2	4.09
Australia	35.1	4.0
1971 — Tasmania	31.0	8.0
Australia	28.7	8.3
1986 — Tasmania	24.4	10.9
Australia	23.4	10.6



Tasmania has relatively more persons aged 0–19 and 65–79 years and fewer in the working age groups, between 20 and 59 years, than Australia in general.

Marital Status

The marital status characteristics of Tasmanians are very similar to those nationally, except that proportionally more Tasmanians are married and fewer have never married.

Reflecting the higher life expectancy of females, for every 100 widowed males aged 70 years and over there are 428 widowed females. This compares with the Australian figure of 457 widowed females for every 100 widowed males 70 years and over.

Aboriginals

In 1986, 6 719 Aboriginals comprised 1.5 per cent of the Tasmanian population. This was the same proportion as that of Aboriginals and Torres Strait Islanders in the total Australian population.

In Tasmania, 47.9 per cent of aboriginals aged 15 and over were employed, while 12.8 per cent were unemployed. Nationally, only 31.3 per cent were employed while 17.1 per cent were unemployed.

Country of Birth

The significant feature of Tasmania's population compared with the population nationally is the smaller proportion of people born overseas. Of Tasmanians, 88.8 per cent were born in

6.7 MARITAL STATUS, TASMANIA 1986

Status	*Tasmania*				*Australia*
	Males	*Females*	*Persons*	*%*	*%*
Never married —					
Aged 15 years and over	49 123	38 550	87 673	26.4	28.4
Now married	98 898	99 122	198 020	59.6	57.8
Separated	3 983	4 623	8 606	2.6	2.6
Divorced	6 840	8 396	15 236	4.6	4.7
Widowed	4 218	18 447	22 665	6.8	6.5
Total	163 062	169 138	332 200	100.0	100.0

6.8 COUNTRY OF BIRTH, 1986 CENSUS

Status	Tasmania				Australia
	Males	Females	Persons	%	%
Australia	192 032	197 719	389 751	88.8	77.9
England	9 496	9 292	18 788	4.3	5.6
Germany	1 058	925	1 983	0.5	0.7
Greece	413	327	740	0.2	0.9
India	195	221	416	0.1	0.3
Ireland (Republic)	286	271	557	0.1	0.3
Italy	771	479	1 250	0.3	1.7
Lebanon	40	26	66	0.0	0.4
Malaysia	308	281	589	0.1	0.3
Malta	61	20	81	0.0	0.4
Netherlands	1 542	1 457	2 999	0.7	0.6
New Zealand	1 357	1 277	2 634	0.6	1.3
Poland	770	523	1 293	0.3	0.4
Scotland	1 450	1 433	2 883	0.7	1.0
South Africa (Republic)	262	273	535	0.1	0.2
USA	351	321	672	0.2	0.2
Vietnam	140	102	242	0.1	0.5
Yugoslavia	511	255	766	0.2	1.0
Other	3 733	3 549	7 282	1.7	4.8
Total (*a*)	217 378	221 400	438 778	100.0	100.0

(*a*) Includes not stated.

Australia, more than 10 per cent greater than the national figure of 77.9 per cent. Those from the United Kingdom accounted for 51.9 per cent of those born overseas.

Of Tasmania's overseas born population, 8.9 per cent became residents since 1981. Nationally 13 per cent of the overseas born population have been residents for less than five years.

Families

Single parent families account for 7.7 per cent of all Tasmanian families, a marginally higher proportion than the national figure of 7.3 per cent. Over 30 per cent of Tasmanian families are couple only families, while families consisting of a couple and dependent children comprise 36.4 per cent of all families. Again, these family structures in Tasmania are proportionally higher than national figures.

A total of 5 260 de facto relationships were counted in Tasmania, 5.2 per cent of total families.

6.10 FAMILY STRUCTURE, 1986

Family	Tasmania Number	Tasmania %	Australia %
Parent and dependent children	6 863	5.9	5.3
Couple	35 401	30.5	30.2
Couple and dependent children	42 288	36.4	36.0
Related adults	6 877	5.9	6.3
Parent, dependent children and adult family members	2 120	1.8	1.9
Couple and adult family members	12 605	10.8	11.0
Couple, dependent children and adult family members	10 097	8.7	9.3
Total	116 251	100.0	100.0

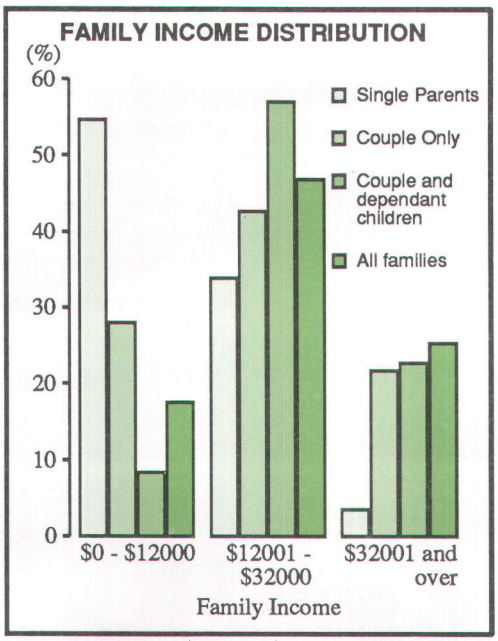
6.9 COUPLES AND TYPE OF UNION, 1986 (%)

Couples	Tasmania		Australia	
	Married	De facto	Married	De facto
Couple only	92.4	7.6	90.8	9.2
Couple and dependent child(ren)	95.5	4.5	95.6	4.4
Couple and adult family member	97.7	2.3	97.3	2.7
Couple, dependent child(ren) and adult family members	97.1	2.9	97.0	3.0
Total	94.8	5.2	94.3	5.7

Family Income

Tasmania's median family income was $22 161 in 1986. That is, 50 per cent of families had an income above $22 161. The distribution of family income among Tasmanian families differed markedly from the national distribution reflecting Tasmania's overall lower income level.

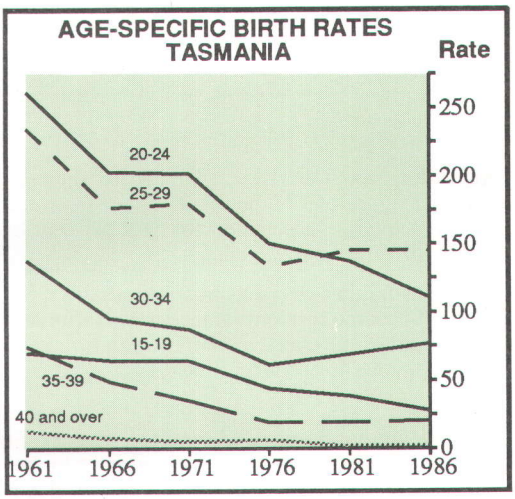
In Tasmania, 55 per cent of single parents had a family income of $12 000 or less compared with the national figure of 48 per cent and those single parent families earning greater than $32 001 were 3.8 per cent compared with 6 per cent nationally. Couples with dependent child(ren) also had lower incomes with 57.3 per cent having a family income between $12 001 and $32 000 and 23 per cent with incomes over $32 001, compared with 51.1 per cent and 29.6 per cent for Australia as a whole.



6.2 FERTILITY

The late 1950s and early 1960s was a period of peak fertility in the post-war era before a decline in the mid 1960s, which continued steadily through the 1970s. The trend since 1980 indicates that a period of stability may have been reached, but at a level only a little over 50 per cent of the 1961 rate.

Whereas prior to 1977 the most fertile age group was 20–24, this is now the 25–29 age group. The fertility rate of the 20–24 age group has continued to decline while that of the 25–29 and 30–34 age groups have risen slightly. Several factors have contributed to these trends including later marriage and an increasing period between marriage and the birth of the first child.



Since the early 1960s the median age for spinster brides has increased from about 21 years to 22.8 years in 1986. In the mid 1960s the median

6.11 FAMILY INCOMES, TASMANIA, 1986

Primary family composition	*$0–$12 000*	*$12 001–$32 000*	*$32 001 and over*	*Total (a)*
Parent and dependent child(ren)	4 626	1 745	107	6 835
Parent, dependent child(ren) & related adult	296	1 317	230	2 116
Families which include a couple —				
Couple only	9 680	14 716	7 540	35 260
Couple and dependent child(ren) only	3 571	23 478	9 407	42 208
Other couple	415	8 250	10 591	22 689
Total couples	13 666	46 444	27 538	100 157
Related adults	1 478	3 850	1 106	6 846
Total families	20 066	53 356	28 981	115 954

(*a*) Includes family income not stated, families with 2 929 spouses absent, and excludes 295 families in caravan parks.

duration between marriage and the birth of the first child was about 12 months. This increased during the 1970s and in 1986 it was approaching 2½ years.

6.12 MEDIAN AGE OF BRIDES (YEARS)

Year	*Spinster*	*All Brides*
1971	20.5	20.8
1981	21.6	22.6
1985	22.6	23.8
1986	22.8	24.2

The fertility rate, as measured by the net reproduction rate, is falling and since the early 1970s has been below replacement level. Prior to 1986, the Tasmanian rate had been higher than the national rate, but in 1986 this situation reversed. There was at that stage, however, little evidence to indicate the presence of a permanent trend.

6.13 NET REPRODUCTION RATES, TASMANIA AND AUSTRALIA

Year	*Tasmania*	*Australia*
1971	1.399	1.362
1981	0.995	0.925
1985	0.968	0.924
1986	0.889	0.895

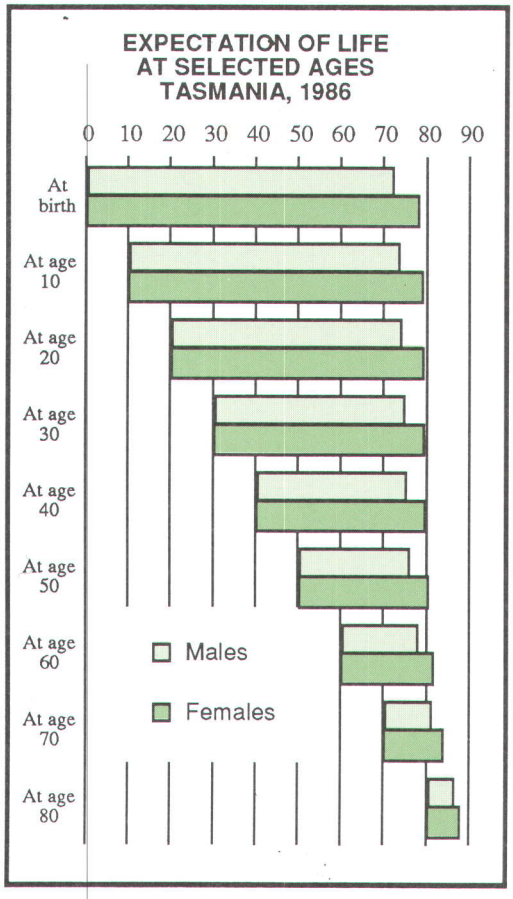
6.3 LIFE EXPECTANCY AND MORTALITY

6.3.1 Life expectancy

A measure often used to indicate changes in the health status of a community or to make comparisons between communities is life expectancy. This is the number of years that a person can, on average, expect to live past his present age, and is based on death rates of the population.

Reflecting the high infant mortality rates and death rates during the early years of life, life expectancy at age 0 in the early part of this century was less than at age 5. Improvements in hygiene and health care substantially reducing infant and early age death rates, has increased life expectancy at age 0 for both males and females. Expectation of life at age 0 for males has improved by 17.4 years since the beginning of the century and for females by 20.9 years.

At higher ages, the changes were minor until the 1970s. In 1970–72 life expectancy for males aged 60 was 15.4 years compared with 14.3 years in the first decade of this century and for females



19.7 compared with 16.2 years. Since 1970–72 there has been a significant increase in life expectancy of 60 year olds; for males it has increased by 2.6 to 18.0 in 1986 and for females by 2.1 years to 21.8 years. Much of this improvement can be related to prevention and advances in treatment of diseases associated with the circulatory system such as heart attacks and strokes.

6.14 LIFE EXPECTANCY, AUSTRALIA (YEARS)

Age (Years)	*1901–1910*		*1986*	
	Males	*Females*	*Males*	*Females*
0	55.2	58.8	72.8	79.1
5	57.9	58.6	68.7	74.9
10	53.5	56.0	63.7	69.9
20	44.7	47.5	54.1	60.1
40	28.6	31.5	35.4	40.7
60	14.3	16.2	18.1	22.5
70	8.7	10.0	11.5	14.7

The increase in life expectancy means there is an increasing number of elderly people in the population, many of whom will be needing support services.

At all ages females have a higher life expectancy than males.

6.3.2 Mortality

The 1970s and 1980s have been years of considerable improvement in mortality rates, particularly among the higher age groups, and infants. Improvements in age-specific death rates have been most marked among the age groups over 60 years with decreases of between 19 and 37 per cent for males and 16 and 27 per cent for females. The infant mortality rate has also fallen quite dramatically, from 20.3 per thousand live male births in 1960–62 to 14.9 in 1986 and from 17.3 to 10.6 among females. Nevertheless, the infant mortality rate is higher in Tasmania than for Australia.

6.17 AGE-SPECIFIC DEATH RATES, TASMANIA

Age group (years)	*Males*		*Females*	
	1970–72	*1986*	*1970–72*	*1986*
Under 1	17.8	14.9	11.5	10.6
1–4	1.0	0.8	0.7	0.6
5–9	0.5	0.6	0.4	0.1
10–14	0.6	0.5	0.3	–
15–19	2.4	1.1	0.6	0.4
20–24	2.0	1.6	0.5	0.5
25–29	1.8	1.3	0.8	0.2
30–34	1.8	0.9	0.8	0.8
35–39	2.1	1.2	1.3	0.7
40–44	3.4	1.9	1.9	2.4
45–49	5.3	3.9	3.0	1.7
50–54	9.5	7.5	5.6	3.9
55–59	15.5	11.0	8.0	5.7
60–64	25.2	18.3	12.4	9.4
65–69	39.5	25.0	21.3	17.8
70–74	62.2	50.1	36.5	28.2
75–79	91.9	76.4	60.9	43.9
80 and over	164.0	134.9	135.5	116.4

6.4 REFERENCES

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LABOUR AND THE WORKPLACE

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Chapter 7

LABOUR AND THE WORKPLACE

Over the last two decades the Tasmanian labour force as well as the conditions under which people are either employed or not employed have undergone significant changes. Whereas in the early 1960s an unemployment rate of three per cent was considered unacceptably high, it is now above eight per cent. In response governments, both Commonwealth and State, have devised schemes to create additional jobs and training opportunities as well as to alleviate the financial hardship resulting from the loss in income.

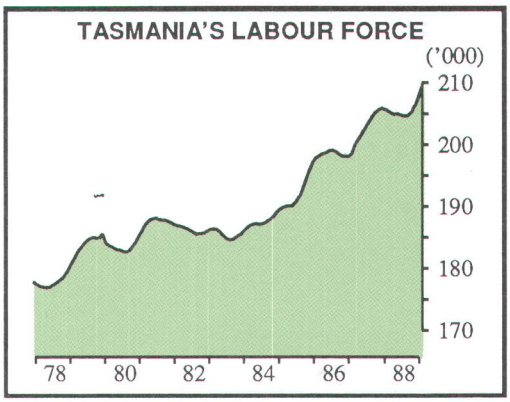
Women now comprise a significantly greater proportion of the labour force than at any time since the Second World War. This has been a leading factor in moves against discrimination in employment and working conditions on the basis of sex.

Changes have also occurred in the work environment. Earnings have increased substantially although in many cases hours worked have decreased. The concept of a basic wage has been replaced by that of a total wage incorporating the idea of a minimum wage to be applied equally to males and females doing work of equal value.

Australia's conciliation and arbitration system, established early this century, has resulted in a level of unionism unparalleled anywhere in the Western world. The system of periodic national wage cases that has ensued has reinforced the union as a corner stone of the Australian system of industrial relations. This has given workers' organisations wide ranging responsibilities and powers in maintaining and regulating working conditions. For example, legislation in Tasmania has given specific and extensive powers to safety representatives elected to monitor workplace conditions and practices.

7.1 THE LABOUR FORCE

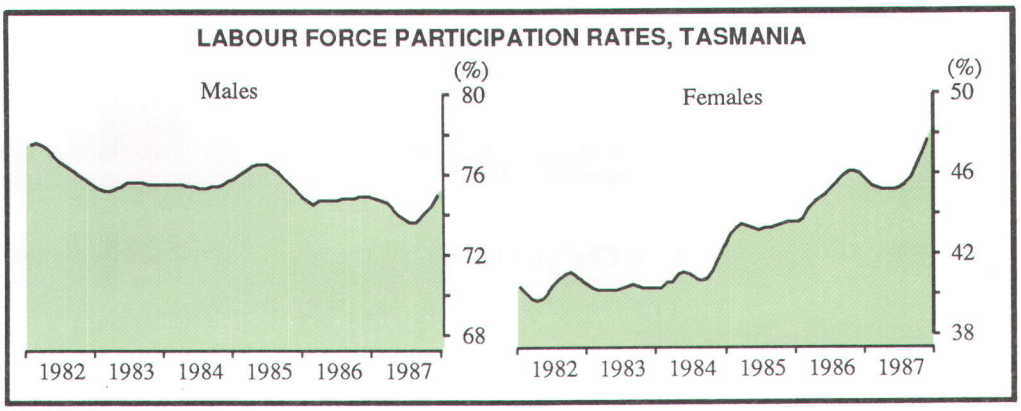
At August 1987 there were 204 800 people or 59.3 per cent of the State's working age civilian population either working or looking for work.



The number of persons either working or looking for work has grown by 15.4 per cent over the last decade. However, as a proportion of the civilian population, the labour force declined in the early 1980s before picking up significantly in the last few years. Such fluctuation is mainly due to varying movements in male and female participation levels in the labour force.

7.1.1 Participation in the Labour Force

The labour force comprised 125 100 males and 79 700 females at August 1987. Although the trend has not been dramatic, it is clear that the proportion of males making up the labour force has been falling steadily; from 66.7 per cent in August 1978 to 61.1 per cent in August 1987.



In that period the number of women in the labour force as a proportion of the female population (female participation rate) has increased while the male participation rate has fallen.

The fall in the proportion of males in the labour force has occurred in all age groups but most noticeably in the 55–64 age group, reflecting the effect of early retirement schemes and retrenchments.

7.1 LABOUR FORCE PARTICIPATION RATES, TASMANIA MALES (%)

Age group	*At August*	
	1978	*1987*
15–19	63.0	59.5
20–24	95.0	86.9
25–44	97.1	93.8
45–54	93.8	88.6
55–64	67.7	54.0
65+	10.2	7.2
Total	78.5	72.9

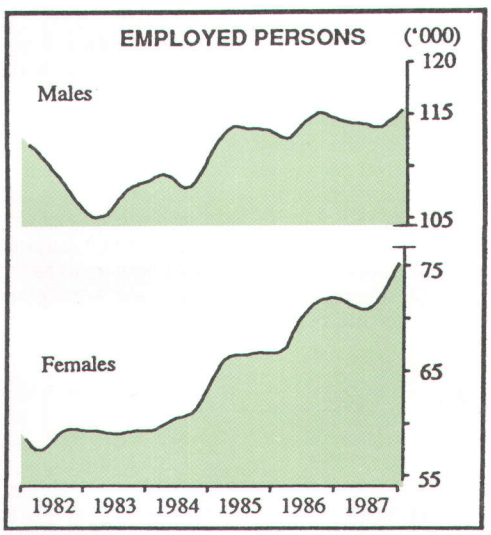
7.2 LABOUR FORCE PARTICIPATION RATES, TASMANIA FEMALES (%)

Age group	*At August*	
	1978	*1987*
15–19	53.5	52.5
20–24	61.8	67.5
25–44	46.5	59.8
45–54	43.0	51.3
55–64	20.1	18.0
65+	1.1	2.4
Total	38.7	44.6

The increase in female labour force participation has occurred in the 20–54 age group with the most significant increase being among females aged between 25 and 44. A major factor in this growth has been the significant increase in the number of females employed part-time.

7.1.2 Employment

After a fall in employment levels in the early 1980s, by August 1987 the number of people working in Tasmania had risen to 185 500. Almost all of this employment growth is due to the substantial increase in the number of females employed. While there has been little change to total male employment since 1978, female employment has grown by 32.0 per cent; from 54 300 in 1978 to 71 700 in August 1987. In 1978, 67.2 per cent of all employed persons were male. By 1987 this proportion had fallen to 61.3 per cent.



Although total male employment has not changed significantly between 1978 and 1987, there have been some changes to the age distribution of those employed. There has been a fall in those employed aged 15–24, largely reflecting declining population birth rates, and a fall in the number of males aged 45 and over with jobs, due to the influence of early retirement. Thus employed males aged 25–44 now comprise 53.1 per cent of all males employed (46.3 per cent in 1978).

7.3 EMPLOYED MALES, TASMANIA ('000)

Age group (years)	*August 1978*	*August 1987*
15–19	11.1	9.7
20–24	14.7	13.4
25–34	29.7	32.3
35–44	21.9	27.7
45–54	19.9	18.3
55+	14.1	11.5
Total	111.4	113.0

Among females however, almost every age group has shown growth in employment since 1978, with the number aged 25–34 growing by nearly 57 per cent from 12 500 to 19 600, and those employed aged 35–44 increasing by 63 per cent from 11 000 to 17 900. More than half of this growth has been in full-time employment.

7.4 EMPLOYED FEMALES, TASMANIA ('000)

Age group (years)	*Full-time*	*Part-time*	*Total*
	August 1978		
15–19	7.5	1.1	8.6
20–24	7.7	1.8	9.5
25–34	6.6	5.9	12.5
35–44	4.8	6.2	11.0
45–54	4.9	3.9	8.8
55+	1.7	2.4	4.1
Total	33.2	21.2	54.5
	August 1987		
15–19	4.8	3.0	7.8
20–24	8.8	2.2	11.1
25–34	11.1	8.4	19.6
35–44	9.0	8.9	17.9
45–54	6.1	4.2	10.3
55+	1.9	2.3	4.2
Total	41.8	29.1	70.9

More than one quarter (26.8 per cent) of all Tasmanian employees work in the community services industry (which includes the health and education sectors), 17.1 per cent of all employees work in wholesale and retail trade and 16.3 per cent work in the manufacturing industry.

Female employees are concentrated in two industries, community services and wholesale and retail trade, which together account for over 60 per cent of all female workers. Male employees on the other hand are more evenly distributed, with 54 per cent working in either manufacturing, community services or wholesale and retail trade.

7.5 INDUSTRY EMPLOYMENT DISTRIBUTION, TASMANIA, AUGUST 1987, (%)

Industry	*Males*	*Females*	*Persons*
Mining	3.2	0.3	2.0
Manufacturing	22.5	8.0	16.3
Electricity, gas and water, construction	12.4	2.0	8.0
Wholesale and retail trade	15.5	19.1	17.1
Transport and storage	6.6	1.5	4.5
Communication	3.0	1.1	2.2
Finance, property and business services	8.1	12.3	9.9
Public administration and defence	6.5	4.3	5.7
Community services	16.0	41.3	26.8
Recreation, personal and other services	5.4	9.6	7.2
Total all industries	100.0	100.0	100.0

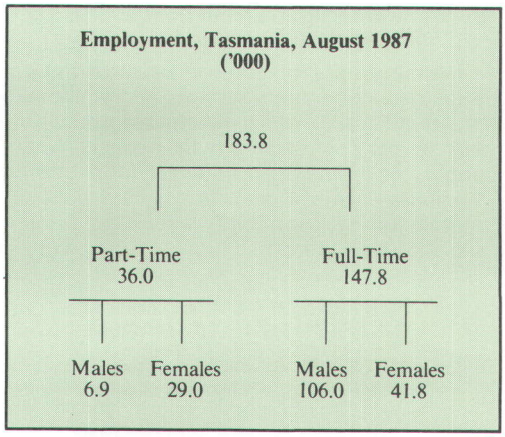
Employment growth in recreation and personal services, community services, and finance, property and business services has well exceeded growth in the other components of the Tasmanian economy. Given that these industries traditionally employ a higher proportion of females than males, it provides a clear explanation for the growth in female employment.

The two areas of the Tasmanian labour market which have declined in employment levels over the last decade are construction, and transport and storage, while employment in manufacturing has barely changed.

Employment Sector

Nearly 65 per cent of all employees in Tasmania are employed in the private sector. The remaining 35 per cent, 53 600 at August 1987, are employed by the public sector. Of these, 10 100 were employed by the Commonwealth government, 39 900 by the State government, and 3 500 by local government.

The proportion of public sector employment in Tasmania is the highest of all the States; for every 1 000 Tasmanians there were 119 in government employment. Corresponding figures for other States were: New South Wales — 102, Victoria — 109, Queensland — 95, South Australia — 112 and Western Australia — 105.



Part-time and Full-time Employment

In Tasmania, nearly 20 per cent of all employed persons work part-time, of which just over 80 per cent are females. Forty-one per cent of all employed females work part-time with the highest proportion being the 35 and over age group where 47.5 per cent work on a part-time basis.

Since 1978, growth in part-time employment has greatly exceeded the increase in full-time jobs. Part-time employment has increased by 41.2 per cent compared with only 5.3 per cent in full-time employment.

Occupational Structure

The occupational structure of employment is a fairly even pattern. Trades, with 17.2 per cent of employed persons, have the largest share; 15.7 per cent are clerks and a further 14.8 per cent are salespersons and personal service workers.

7.6 OCCUPATIONAL STRUCTURE, TASMANIA, AUGUST 1987

Occupation	*Percentage distribution (%)*		
	Males	*Females*	*Persons*
Managers and administrators	11.2	5.3	8.9
Professionals	11.3	13.2	12.0
Para-professionals	5.3	9.0	6.7
Tradespersons	25.0	4.7	17.2
Clerks	7.6	28.5	15.7
Salespersons and personal service workers	8.8	24.5	14.8
Plant and machine operators, and drivers	15.8	2.8	10.8
Labourers and related workers	15.1	12.1	13.9
Total	100.0	100.0	100.0

Since 1978 the number of clerical and sales workers in Tasmanian employment has grown by about 16 per cent. There has also been growth in those employed in service, sport and recreation jobs and of professional and technical workers. The number of Tasmanian tradespersons and production process workers (including labourers) has fallen by about five per cent since 1978.

Employment patterns differ markedly between males and females. Three occupations, tradespersons, plant and machine operators and drivers, and labourers account for almost 56 per cent of all male employment. Females however, tend to be predominantly clerks, or salespersons and personal service workers. In addition, proportionally more males than females occupy positions as managers and administrators.

7.1.3 Unemployment

The upsurge in unemployment that occurred in the mid-seventies was merely a foretaste of worse to follow. In the next few years the unemployment rate soared from 6.6 per cent in 1978 to a peak of 11.0 per cent, 21 000 people, in July 1984. By August 1987 it had fallen to 9.4 per cent with 19 200 people looking for work.

7.7 UNEMPLOYMENT, TASMANIA

Year	*Number unemployed ('000)*			*Unemployment rate*
	Males	*Females*	*Total*	*%*
August —				
1978	6.9	4.8	11.6	6.6
1980	5.9	4.8	10.7	5.8
1982	11.5	7.0	18.5	9.9
1984	13.4	7.3	20.7	10.9
1986	9.9	7.1	17.0	8.4
1987	8.9	8.1	19.2	9.4

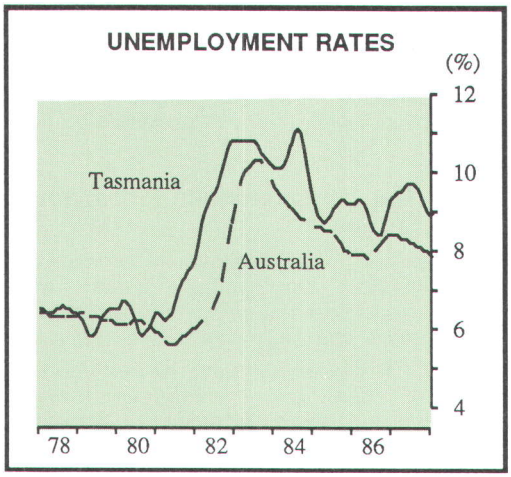
The unemployment rate for females at August 1987 was at a similar level to that ten years ago. However the rate for males has increased signi-

7.8 TREND IN UNEMPLOYMENT RATES, TASMANIA (%)

Year	*Males*	*Females*
August —		
1978	5.8	8.0
1980	5.0	7.4
1982	9.6	10.6
1984	11.0	10.7
1986	7.9	9.1
1987	8.9	8.1

ficantly, from 5.8 to 8.9 per cent. Both male and female unemployment rates have shown large movements over the ten-year period.

Since 1980, the unemployment rate in Tasmania has remained well above that measured in Australia overall.



Unemployment in Tasmania is not distributed evenly across the State, with the problem generally less extreme in the Hobart region than in the north of the State. For the eight months to August 1987 the average unemployment rate in the Hobart and Southern region was 8.8 per cent compared with 9.5 per cent in the Northern region and 11.5 per cent in the Mersey Lyell region.

Youth Unemployment

Unemployment is particularly severe amongst young people. Although they comprise only 22.0 per cent of the total population aged 15 and over, persons aged 15–24 years account for nearly half (46.1 per cent) of all unemployment in the State.

7.9 AGE DISTRIBUTION OF UNEMPLOYED, TASMANIA, AUGUST 1987 (%)

Age group	*Proportion of population*	*Proportion of unemployment*
15–19	11.3	24.4
20–24	10.7	21.7
25–34	21.4	24.7
35–44	18.2	17.2
45–54	12.4	8.3
55+	26.0	3.7
Total	100.0	100.0

In the 15–19 year old age group, one person in every five who want to work is unemployed. This situation is not unique to Tasmania but adequately reflects the national situation.

The unemployment rate for females is currently 4.6 per cent higher than males in the 15–19 year old age group. However, the reverse occurs in the 20–24 age group where the female unemployment rate is 5.6 per cent below that of males.

7.10 UNEMPLOYMENT RATES BY AGE (%)

Year	*15–19*	*20–24*	*25–44*	*Total*
		Males		
August —				
1982	19.5	20.3	6.0	8.7
1984	31.5	19.3	7.7	11.4
1986	18.6	8.7	6.7	7.7
1987	18.2	16.4	6.9	8.7
		Females		
August —				
1980	17.4	*	*	6.0
1982	31.5	11.1	5.9	10.5
1984	22.0	14.5	9.0	10.9
1986	20.3	13.2	6.4	8.9
1987	22.8	10.8	7.9	9.6

'Hidden Unemployment'

As levels of unemployment rose the term 'hidden unemployment' became widely used to describe those who, although failing to satisfy the statistical criteria as unemployed, nevertheless do have some commitment to gain work. The term 'hidden unemployment' is used to refer to people who, while neither employed nor actively seeking work when surveyed, would seek work if the demand for labour should improve or other considerations would change to allow them to seek work. However, precise measurement is difficult. People wanting to work include a range of potential workers, from genuine discouraged job seekers to people with family commitments whose interest in finding employment may be unlikely to be realised.

At March 1987 there were an estimated 20 000 people who, although neither working nor officially 'unemployed', nevertheless indicated this kind of 'marginal attachment' to the labour force. Of these, almost three quarters had personal or family reasons for not actively looking for work. Just over 11 per cent were people who believed they would not be able to find a job, and therefore were too discouraged to look for work.

7.2 EMPLOYMENT, EDUCATION AND TRAINING

With unemployment at a level that only a few years ago was regarded as potentially destructive of the nation, governments have had to become increasingly involved in employment programs, job placement, skills training, structural adjustment, and labour market planning.

The quality of Australia's future workforce skills will depend not only on the basic education and initial preparation provided to young people, but also on the development and continuous upgrading of skills in the adult workforce. Traditional skill requirements have already undergone significant change as a result of the rapid spread of micro-electronic applications in the manufacturing and service industries, and further changes will inevitably occur under the influence of continuous improvements in technology. The need for skills upgrading and redirection during working life will apply to all levels of the workforce. Consequently, government is moving on a number of fronts to make education and training systems more attuned to the new requirements for skills demanded by our changed economic circumstances.

One of the major factors being addressed at present is secondary education retention rates. Although Australia's retention rate has increased from 36.6 per cent in 1982 to 48.7 per cent in 1986, it remains low by comparison with countries such as Japan and the USA. The Commonwealth Government has set a goal of a 65 per cent retention rate to year 12 by the early 1990s.

Australia also lags behind other countries in the proportion of the workforce holding post school qualifications with only 9 per cent holding a degree or equivalent.

The range of structured training opportunities is one area which could be considerably broadened. Apprenticeships remain a major employment and training destination for large numbers of young Australians. Outside of apprenticeships and tertiary education, up to 10 000 young people leave school each year and receive no further substantial vocational preparation.

The Australian Traineeship System was set up to remedy this deficiency by offering school leavers a year of systematic vocational preparation involving a combination of structured on-the-job training within employment and broadly based instruction at a TAFE institution or other approved training facilities. By the end of August 1987, more than 11 000 traineeship positions had been created and over 9 000 trainees had commenced training. Wide acceptance of the traineeship concept will be an important factor in improving the competitiveness of young people in the labour market and will assist further long-term improvements in the national skill base.

Government has also adopted special measures embracing employment assistance, training, community-based initiatives and income support to assist long-term unemployed youth and others assessed as especially disadvantaged in the labour market. Priority is being given to active market measures which enhance the long-term employment and skills development prospects of these people.

7.2.1 The Commonwealth Employment Service

Australia's public employment service, the Commonwealth Employment Service (CES), has its origins in the provisions of the *Re-establishment and Employment Act* 1945.

The CES is required, under the 1945 Act and the more recent *Commonwealth Employment Service Act* 1978, to provide an equitable employment service to job seekers and employers, to deliver employment and training programs and to advise the Government on labour economic matters.

CES services to job seekers extend from direct placement in employment of those persons who can immediately perform the job, to the provision of various forms of assistance to those who are experiencing difficulty gaining employment.

The services are provided through a decentralised network of offices throughout Australia. In all there are 277 Job Centres of the Commonwealth Employment Service plus 22 full-time and 20 part-time Branches and 132 Agents.

The CES provides a range of information and counselling services. These services include information and advice provided by the Youth Access Centres, Work Information Centres and Career Reference Centres. They hold a comprehensive library of audiotapes, videotapes and advice on the job search process. The centres are special units of the CES which do not engage in job placement activity.

7.11 CES STATISTICS, TASMANIA, 1986–87

Registrations of job seekers	70 847
Vacancies notified to the CES	34 893
Vacancies filled	30 199
Unemployed persons registered at 30 June 1987	26 753

Source: Commonwealth Employment Service, *Report of the National Director 1986–1987.*

In addition, Professional Employment Services Offices are provided in the major centres of population and business, which respond to the needs of professionally qualified job seekers.

In its attempts to increase employment prospects of job seekers, the CES provides counselling and support services for groups with particular difficulties and needs. These include youth, people with disabilities, Aboriginals and migrants.

7.2.2 Commonwealth Government Assistance Schemes

Community Youth Support Scheme

The Community Youth Support Scheme (CYSS) was introduced in October 1976 as a means of encouraging local community groups to become involved in assisting unemployed young people. The program is one of several community-based programs which aim to assist young people to compete more effectively for jobs in the labour market and develop both their personal and work-related skills while unemployed.

The objectives for the program are:

- to assist unemployed people aged 15–24 years inclusive to obtain and retain employment or to proceed to further education or training by enabling local communities to develop programs of assistance which will develop the work and personal skills of local unemployed young people; and
- at the national level provide for equal access by young men and women, with emphasis given to those groups who have been identified by the Government as especially disadvantaged: the long-term unemployed, Aboriginals, people with disabilities, migrants with English language difficulties or cultural barriers inhibiting employment prospects, and other special needs job seekers e.g. wards of the state, ex-offenders etc.

These objectives are achieved through a network of community-based CYSS projects servicing areas of high unemployment which provide a balanced range of relevant programs and activities for the target group within the local area.

Any young unemployed person under 25 years of age, over the legal school leaving age (or with special exemption) and not in full-time education, is eligible to participate in CYSS projects. This includes people receiving a pension or benefit who will eventually be capable of work. There are 22 CYSS groups throughout the State.

Community Employment Program

The Community Employment Program (CEP) was created to provide employment opportunities, particularly for those most disadvantaged in the workforce. In May 1987, the program was discontinued as part of a fundamental shift in government policy to assist job seekers via training (notably the Traineeship System) instead of short term job creation.

The program was jointly administered by the Commonwealth and State governments in a constructive partnership with local government authorities and community organisations. It commenced on 1 August 1983 and was funded for a further year after the initially proposed three years.

7.12 CEP APPROVALS, TASMANIA, AUG. 1983–MAY 1987

Value of approved projects ($m)	48.6
Number of projects	1 283
Number of jobs	4 518

While the major objective of CEP was to create employment opportunities for disadvantaged job seekers, another significant benefit has seen the provision of many outstanding community facilities such as the Japanese Garden at the Royal Botanical Gardens, Hobart, refurbishing the Church of the Apostles Cathedral, Launceston, and many parks and recreation areas all around the State.

Community Training Program

The Community Training Program (CTP) was introduced in January 1986 to provide assistance to community organisations which develop full-time structured employment-related training opportunities for unemployed people.

The Community Training Program was created to improve the employment, education and training prospects of people who are experiencing special difficulties in finding employment by offering flexible training options in a non-threatening environment.

CTP projects assist disadvantaged job seekers to acquire the necessary skills to compete in the workforce. Linkage with other programs may be made if further training is required.

Community Volunteer Program

The Community Volunteer Program (CVP) was introduced in March 1987 as a means of encouraging community groups or local government authorities to be involved in co-ordinating volunteer opportunities for unemployed people.

The objective of the CVP is to assist unemployed people, particularly the young unemployed, to improve their labour market prospects and enhance their personal skills by participating in voluntary activities of benefit to the community.

The Commonwealth Government in October 1987 announced its intention to integrate the three community employment and training programs, CYSS, CTP and CVP.

Adult Training Program/ Youth Training Programs

These programs assist disadvantaged job seekers such as the long-term unemployed, to increase their competitiveness in the local labour market through the acquisition of marketable skills.

Short-term training up to a maximum 12 months duration is provided through established or specially contracted courses designed to meet local labour market needs. Preparatory training may also be approved to enable participants to undertake skills training.

JOBSTART

JOBSTART, introduced in December 1985, provides a 26-week wage subsidy to employers who provide jobs to job seekers who have experienced long periods of unemployment or face other disadvantages in obtaining employment.

Assistance is offered to employers if they are prepared to pay at least the award or appropriate wage for the job and fulfill other award conditions.

Heavy Engineering Adjustment and Development Program

This scheme was introduced to assist with the restructuring and revitalising of the heavy engineering industry. Assistance is provided to heavy-engineering firms to upgrade and enhance the skills of existing employees, ncluding assistance with the training of specialised trainers and supervisors. This assistance is linked to improvements in work practices and more effective utilisation of existing and new technology.

In addition, a package of formal training, wage subsidy and relocation assistance is provided for workers retrenched from heavy-engineering firms, including eligibility for labour-market-orientated formal training, relocation assistance and eligibility for wage subsidy assistance.

7.2.3 State Government Assistance Schemes

The Department of Employment and Training was formed in July, 1986 and brought together parts of Treasury, the Department of Labour and Industry and the Training Authority of Tasmania (formerly the Apprenticeship Commission) associated with the delivery of employment and training programs.

The main objectives of the Department are to increase the level of employment within Tasmania and ensure the timely supply of an appropriately skilled workforce through the creation and maintenance of employment generating programs, and the development, administration, and support of vocational training programs.

Taswork

On 23 January 1986 the Tasmanian Government announced it would trial a new employment assistance scheme to be called 'Taswork'. The announcement came in response to a specific request from the Municipality of George Town to help combat the high level of youth unemployment in that Municipality. The scheme was publicly launched in October 1986 and the first Taswork project began in December 1986. During 1987 Taswork provided regular employment for 60 of the 100 participants registered with the scheme. The remaining 40 were awaiting the commencement of new projects.

The purpose of Taswork is to provide young unemployed people with the opportunity to do two days a week community work whilst retaining eligibility for unemployment benefit. Participants in the scheme are paid an allowance equivalent to minimum award rates of pay and although their unemployment benefit or jobsearch allowance is adjusted to take account of this income, their eligibility for this and other forms of assistance to the unemployed is retained.

The cost of the scheme as at 30 June, 1987, was $169 451. In total, an amount of $114 918 was spent on the 38 Taswork projects. The cost per participant, since the inception of the program and as at 30 June, 1987, was $2 118.

Tasmanian Employment Program

The Tasmanian Employment Program (TEP) provides a grant of $5 000 spread over three equal instalments, to private sector employers for every additional full-time employee engaged and retained for a period of 18 months.

Since the scheme began in 1984–85, there have been some 2 194 grants totalling $6 920 190. As at 30 June 1987, 3 451 jobs had been provided throughout the State.

7.2.4 Training and Apprenticeship

The Commonwealth Department of Employment and Industrial Relations and the State Department of Employment and Training are charged with the role of developing and adminis-

tering employment and training schemes to give people the skills and experience they need to obtain and keep employment.

The Australian Traineeship System

By the end of 1987, 235 young Tasmanians had commenced traineeships under the Australian Traineeship System in various industries around the State. Most of these trainees commenced during 1987. However only 30 trainees had completed their traineeship by the end of the year.

In broad terms, a Traineeship is a structured vocational training system. It combines on and off-the-job training for 16 to 18 year olds. It provides broad-based training and offers the opportunity to progress to permanent employment and a worthwhile career and/or further training and education.

Essentially, a traineeship lasts for 12 months, including 12 weeks off-the-job training which is provided by TAFE Colleges throughout the State. Upon successful completion of the Traineeship a trainee receives a Certificate of Proficiency.

7.13 TRAINEESHIPS, TASMANIA, 1987

Traineeship	*Number of trainees commenced*
Office Skills —	
Private sector	115
Australian public service	50
Local government	12
Telecommunication installation	10
Furniture removals	12
Food and beverage service	26
Local government —	
Maintenance and construction	10
Total	235

Further Traineeships are expected to be offered in the rural, automotive, State services, retail, insurance, banking/finance, fishing and food processing industries in Tasmania during 1988.

Apprenticeships

Apprenticeship involves a signed legal contract (indenture) between the employer, the apprentice and the parent or guardian if the apprentice is under the age of 18 years.

There are two types of training involved in an apprenticeship; broad practical on-the-job training and off-the-job technical instruction given at a technical college.

Attendance at technical college is compulsory and for some trades it may be necessary to attend a college away from home.

The apprentice serves a three-month probationary period before the formal contract of training (indenture) is signed by the employer and the apprentice. Once the indenture is signed and registered, a contract exists and the apprenticeship can only be ended if the government Training Authority agrees. When the apprenticeship is finished the indenture is given to the apprentice to show he/she is a qualified tradesperson.

The term of an apprenticeship is generally four years. If the employer agrees, it can be shortened by six months if the apprentice has completed a pre-vocational training course at a college of technical and further education.

During 1986–87 there was a total of 3 773 apprentices in training around the State. Approximately one third of these were in their first year and 87 per cent were males.

7.14 APPRENTICES, TASMANIA, 1986–87

Trade group	*Commencements*	*Completions*	*Apprentices in training at 30 June 1987*
Metal	375	186	1 174
Electrical	124	79	391
Building	250	125	894
Printing	28	7	83
Vehicle	48	16	114
Food	155	95	405
Other	245	133	712
Total	1 225	641	3 773
Male	1 064	–	3 279
Female	161	–	494

Most apprenticeships are served in the private sector, with almost 92 per cent of commencements in 1986–87 occurring with private firms.

Over the ten-year period 1976–77 to 1986–87, the number of apprenticeships in particular trades varied considerably. For instance, the number of commencements in the building trade has decreased by almost half while apprenticeships in other areas such as farming, horticulture and hairdressing have increased by 88 per cent, reflecting a move away from traditional employment areas.

Each year, the Training Authority offers an award of $250 to the outstanding apprentice in each major group of trades. From these apprentices, the 'Apprentice of the Year' is selected. This apprentice is awarded an additional $350 and competes for the National Apprentice of the Year Award.

7.15 APPRENTICESHIPS, TASMANIA, 1976-77 TO 1986-87

	1976-77	*1978-79*	*1980-81*	*1982-83*	*1984-85*	*1985-86*	*1986-87*
Commencements							
Public sector	n.a.	133	121	91	161	80	104
Private sector	n.a.	1 145	1 241	670	955	1 180	1 121
Total	1 427	1 278	1 362	761	1 116	1 260	1 225
Cancellations	254	250	213	200	129	156	251
Completions	1 007	1 007	1 190	1 091	1 046	815	641
In training	4 450	4 445	4 466	3 576	3 152	3 441	3 773
Apprenticeship commencements by trade area							
Metal	450	422	451	248	306	361	375
Electrical	153	139	133	86	100	127	124
Building	481	350	365	141	288	317	250
Printing	33	27	28	11	27	29	28
Vehicle	62	54	47	18	30	43	48
Food	118	125	148	96	141	147	155
Other	130	161	190	161	224	236	245
Total	1 427	1 278	1 362	761	1 116	1 260	1 225

116 apprentices applied for the 1987 awards, almost double the number for the previous year. Seven of the top ten apprentices in their respective trade areas came from the north and north-west of the State.

Apprentice Of The Year

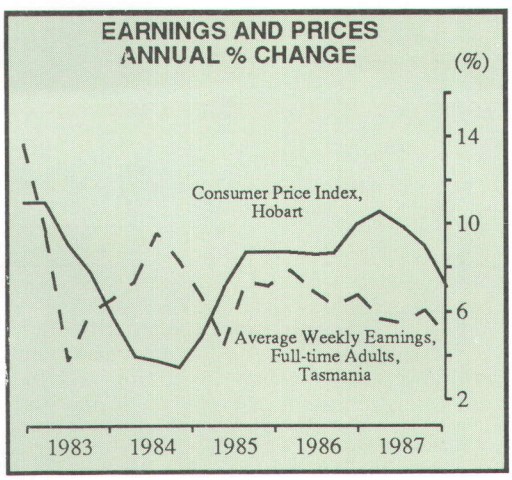


Tasmania's apprentice of the year for 1987 was Scott Greaves, 19, of Launceston. Scott was an apprentice diesel fitter with the Department of Main Roads. He also won the best first and second year apprentice in his trade.

7.3 THE WORKING ENVIRONMENT

7.3.1 Earnings

Annual growth in average weekly earnings of Tasmanian employees over the last three years has been significantly lower than the annual growth in the Hobart Consumer Price Index. The loss in real earnings peaked in the March quarter of 1987 when the annual growth of average weekly earnings of full-time adults was measured at 5.1 per cent, compared with the Hobart Consumer Price Index annual growth of 10.6 per cent. However, while annual growth in earnings has since continued to decline, annual price movements, as measured by the Consumer Price Index, have also declined, thus narrowing the gap in loss of real earnings.



Average earnings for all employees in Tasmania in August 1987 were $369.50. The average for all Australian employees was $393.20. On the average, employees in Tasmania earned slightly more than those in South Australia in August 1987, but were behind all other States and Territories.

On average, Tasmanian male employees earn significantly more than their female counterparts. The average for all males was $440.00 in August 1987 compared with $270.10 for females. This apparent discrepancy can be attributed mainly to the high proportion of females working part-time, consequently earning less income. The difference in the earnings of full-time males and full-time females although still considerable, is much smaller ($483.40 and $382.80 respectively).

7.16 AVERAGE WEEKLY EARNINGS OF EMPLOYEES, TASMANIA

Average weekly earnings	*Earnings at —*		*Annual change*
	August 1986 ($)	*August 1987 ($)*	*(%)*
Full-time adult males	455.60	483.40	6.1
All males	424.80	440.00	3.6
Full-time adult females	356.60	332.80	7.3
All females	254.90	270.10	6.0
Full-time adult persons	428.40	454.60	6.1
All persons	355.10	369.50	4.1

Other factors which have contributed to the differences in male and female earnings include the higher proportion of female juniors in employment, the lower proportion of female managerial employees and differences in occupation and industry structure. Thus the median earnings for female employees remain at a level below that of males.

7.3.2 Other Major Labour Costs

Apart from earnings, there are four other major labour costs facing employers. These are payroll tax, workers' compensation, superannuation and, now, fringe benefits tax.

In Tasmania in 1985–86, for each dollar paid out for employee earnings, it has been estimated that an additional 3.6 cents was paid in payroll tax, 2.1 cents in workers compensation costs and 3.3 cents in employer contributions to superannuation schemes. For all Australian private sector employers, the figures were 3.8 cents, 3.0 cents and 3.7 cents respectively for each dollar paid in earnings.

Within the State an estimated $590 was paid in payroll tax for each employee, $340 for each employee for workers compensation and $550 per employee in superannuation contributions. Just over one third of Tasmania's private sector employees (34.7 per cent) were covered by superannuation, slightly higher than the average for all Australia (32.3 per cent).

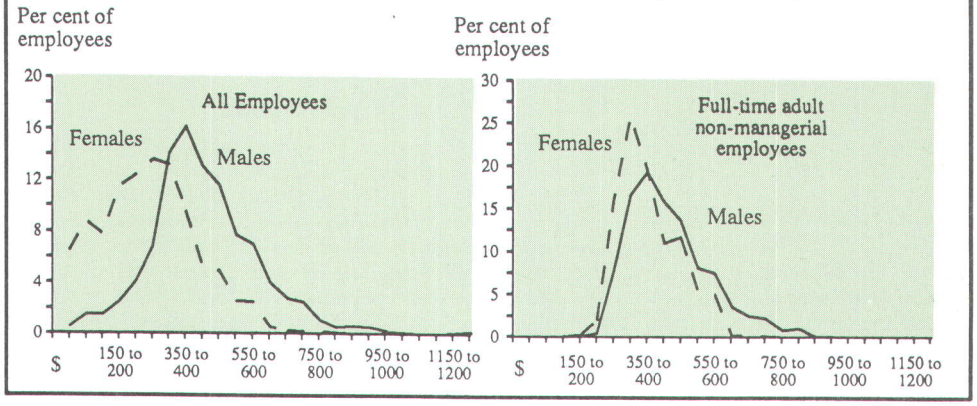
Differences in labour costs between Tasmania and other States are influenced by the industry composition and business concentration of the Tasmanian economy.

For instance, workers' compensation costs are highest in the mining, manufacturing, construction and transport and communication sectors; industries in which proportionally, Tasmania has less employment relative to some other States. In addition, the fact that payroll tax is determined according to employer size means that those States with higher proportion of employment in large companies tend to pay higher costs of payroll tax per employee.

7.3.3 Wage Fixing

In Australia two sets of authorities regulate wages and salaries. The Conciliation and Arbitration Commission with federal jurisdiction, and various State tribunals; in Tasmania the Tasmanian Industrial Commission. In Tasmania approximately 35 per cent of employees are covered by federal awards and about 51 per cent by State awards.

DISTRIBUTION OF AVERAGE WEEKLY TOTAL EARNINGS, TASMANIA, MAY 1987



National Awards

Under the Australian Constitution, the Commonwealth Government's power to legislate in relation to wages is limited to the prevention and settlement by conciliation and arbitration of industrial disputes extending beyond the limits of any one State. This power enabled the establishment of the Commonwealth Court of Conciliation and Arbitration in 1904, since named the Australian Conciliation and Arbitration Commission. The court was empowered to make orders and awards altering what was the basic wage for the purpose of settling industrial disputes which extended beyond any State.

In 1907 Mr Justice Higgins, President of the Court, made the first definition and determination of the basic wage in the 'Harvester Judgment' when he declared a basic wage rate of $4.20 for Melbourne. By 1953, the basic wage had risen to $23.50. In 1967 the basic wage and the payment of margins were replaced by a 'total wage' incorporating a minimum concept. The minimum total wage was set at $38.15 in Hobart.

Since that time the Commission has continued to determine appropriate wage increases and has reviewed the principles of wage fixation on many occasions. The current wage fixation principle in operation since March 1987 involves a two-tier system; the first tier comprises a flat increase of $10 per week while the second tier allows for wage increases of up to 4.0 per cent based on proven productivity gains.

7.17 INCREASES IN AWARD TOTAL WAGES: NATIONAL WAGE DECISIONS

Date Operative	*Per cent Increase*
1981 — 9 January	3.7
7 May	3.6
1983 — 6 October	4.3
1984 — 6 April	4.1
1985 — 18 April	2.6
14 November	3.8
1986 — 1 July	2.3
1987 — 10 March	$10.00 (*a*)

(*a*) This is the first tier payment under the two-tier wage fixing system. The second tier allows for an increase of 4 per cent, of which a maximum of 2 per cent is payable no earlier than 1 September 1987, with a maximum of a further 2 per cent payable no earlier than 1 July 1988.

Tasmanian Awards

With the proclamation of the *Industrial Relations Act* 1984 on 1 January 1985, the Tasmanian Industrial Commission was created. It replaced the system of Industrial Boards that had existed since 1975 and also took over the industrial functions of the Public Service Board and the arbitration functions of the Tasmanian Public Service Arbitrator.

There are five Commissioners, including the President and the Deputy President. They are empowered to make and amend awards relating to industrial matters affecting permanent, temporary, full-time, part-time, casual and piecework. To a limited degree they are also empowered to make and amend awards covering contract employees employed in private industry, in the State Service, or in any State authority outside the State Service, such as the Police and the HEC to the extent those private and public employers are not bound by Federal Awards.

COMMISSION MEMBERS	
President	Mr L A Koerbin
Deputy President	Mr A Robinson
Commissioners	Mr R K Gozzi
	Mr J G King
	Mr R J Watling
Registrar	Mr Q H James

The Commission can hear and determine, without appeal, industrial disputes in any area, provided the subject of the dispute is an industrial matter and is notified to the Commission by an employer, or any registered employee organisation.

7.18 MINIMUM WAGES, ADULT MALES

Date operative (a)	*Federal awards*	*Tasmanian awards*
9 January 1981	140.70	142.10
7 May 1981	145.80	147.20
1 November 1982	145.80	168.00
6 October 1983	152.10	175.20
6 April 1984	158.30	182.40
18 April 1985	162.40	187.10
14 November 1985	168.60	194.20
1 July 1986	172.50	198.70
10 March 1987	182.50	208.70

(*a*) Rates operative from the first pay-period commencing on or after the date shown.

7.3.4 Trade Unions

Tasmania has the highest rate of trade union membership of any Australian State. At the end of June 1987, 62 per cent of Tasmanian employees were members of a trade union; the rate for females was 45 per cent and for males it was 71 per cent. The Northern Territory had the lowest rate; 40 per cent of males, 26 per cent of females giving 34 per cent of all employees. Fifty-six per cent of all Australian employees were members of trade unions.

7.19 PROPORTION OF EMPLOYEES BELONGING TO A TRADE UNION, DECEMBER, (%)

State/Territory	*1979*	*1987*
New South Wales	57	61
Victoria	54	54
Queensland	53	54
South Australia	55	55
Western Australia	49	47
Tasmania	61	62
Northern Territory	42	34
Australian Capital Territory	58	52
Australia	56	56

Over the past nine years, the overall rate of trade union membership in Australia has been quite stable. In 1979, 56 per cent of all Australian employees were trade union members, the same proportion as in 1987. Across the States and Territories, there has been an increase in the proportion of trade union members in New South Wales offset by a small fall in Western Australia and larger falls in the Northern Territory and the Australian Capital Territory.

In Tasmania in 1987 there were 129 unions and a total of 96 500 members. Although female membership has increased over recent years, the proportion of all female employees who are members has declined. The growth in part-time employment, where there is a low rate of unionisation, has contributed to this decline.

7.20 TRADE UNIONS, TASMANIA

	1979	*1987*
Trade Unions	121	129
Members —		
Males	62 100	67 100
Females	26 100	29 400
Total	88 200	96 500

7.3.5 Industrial Disputes

During 1987, 28 000 working days were lost in Tasmania as a result of industrial disputes, a similar level to that experienced in 1986. Days lost through industrial disputes have declined significantly over the last three years from the early 1980s when of the order of 50 000 to 60 000 days were lost each year.

7.21 WORKING DAYS LOST IN INDUSTRIAL DISPUTES, TASMANIA

Year	*Working days lost*
1980	91 500
1983	67 800
1985	20 700
1986	29 200
1987	28 000

In 1987, 177 working days were lost for every thousand employees in Tasmania, a decline on the 190 recorded in 1986 and lower than the national average of 223. However, Tasmania was still the third highest of all States in the number of working days lost per thousand employees, with the New South Wales figures significantly boosting the national average.

7.22 WORKING DAYS LOST PER THOUSAND EMPLOYEES, BY STATE

State	*1986*	*1987*
New South Wales	304	340
Victoria	240	164
Queensland	207	87
South Australia	95	90
Western Australia	272	212
Tasmania	190	177
Australia	242	223

7.3.6 Industrial Accidents

In the twelve months to the end of June 1987, nine fatal industrial accidents were recorded in Tasmania. In addition, a further 62 accidents which resulted in some form of permanent disability were reported.

During the year, a total of 9 090 new compensation claims for industrial accidents were lodged under the *Workers Compensation Act* 1927; 7 835 involved males and 1 255 involved females.

7.23 INDUSTRIAL ACCIDENTS, TASMANIA

Year	*Deaths*	*Total number of accidents*
1979–80	8	9 860
1980–81	11	10 308
1981–82	11	9 779
1982–83	11	9 004
1983–84	9	8 788
1984–85	10	9 795
1985–86	4	10 275
1986–87	9	9 090

Manufacturing accounted for just over 28 per cent of the accidents. The next highest groups were wholesale and retail trade, 13 per cent, and community services, 11 per cent.

7.24 INDUSTRIAL ACCIDENTS BY INDUSTRY GROUP, TASMANIA, 1986–87

Industry group	Number of accidents by extent of disability		Death	Total number of accidents	Time lost (a)	
	Temporary	Permanent			Duration of leave (days)	Average leave (days)
Agriculture, forestry, fishing and hunting	733	7	–	740	16 487	22
Mining	696	–	–	696	8 979	13
Manufacturing	2 544	21	4	2 569	42 414	17
Electricity, gas and water	770	–	–	770	17 904	23
Construction	843	7	2	852	15 240	18
Wholesale and retail trade	1 170	13	–	1 183	20 598	17
Transport, storage and communication	476	3	1	480	9 529	24
Finance, property and business services	95	–	–	95	1 690	18
Public administration and defence	334	2	2	338	6 231	19
Community services	1 026	3	–	1 029	22 831	22
Recreation, personal and other services	332	6	–	338	6 584	19
All industries	9 019	62	9	9 090	430 803	19

(*a*) Temporary and permanent partial disability cases.

For the year, a total of 170 803 days were lost as a result of leave taken with an average of 19 days per accident. The highest average number of days leave taken for accidents was in the manufacture of transport equipment group while the lowest average time off was in the manufacture of fabricated metal products.

Accidents reported include industrial diseases, of which 13 cases were reported. However, the most common types of accidents involved collision with an object and over-exertion or physical stress movement. These two categories comprised almost 60 per cent of all accidents.

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Chapter 8

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Chapter 8

TOURISM, SPORT AND RELIGION

The affluence of modern western society, built upon a traditionally strong emphasis on the physical, mental and spiritual well-being of the population, has channelled much attention towards effectively and efficiently providing for more and more leisure time. The result is a wide range of tourist, sporting and spiritual activities and facilities to meet not only local needs but also the interests of visitors to Tasmania.

8.1 TOURISM

Over recent years Tourism has become a significant contributor to the Tasmanian economy. According to the University of Tasmania's Centre for Regional Economic Analysis, tourism generated about $414 million in 1986 and more than nine per cent of the State's employment.

In that year 629 600 passengers arrived in Tasmania by sea and air from interstate and New Zealand of whom just over 52 per cent were visitors. This was similar to recent years where the number of visitors has fluctuated between 315 500 and 329 100 or between 52 and 58 per cent of the total number of passengers arriving during the year.

8.1 ESTIMATED ARRIVALS IN TASMANIA ('000)

Period	*Passenger arrivals*	*Visitors*
1978	557.2	317.3
1981	591.6	337.5
1984	580.5	315.5
1986	629.6	329.1

The number of visitors arriving in Tasmania has increased by 3.8 per cent since 1978 while passenger arrivals, which include Tasmanians returning to the State, have increased by 13 per cent over the same period.



Most of the visitors to the State have been Victorians although the proportion has dropped from 51 per cent in 1978 to 44 per cent in 1986.

8.2 ORIGIN OF VISITORS TO TASMANIA (%)

State/Country of Origin	*1978*	*1981*	*1986*
Victoria	51.3	46.6	44.4
NSW	20.7	23.0	22.9
ACT	3.2	3.7	3.5
SA and NT	8.5	9.0	7.8
Qld	7.4	7.6	8.4
WA	3.9	4.0	4.0
Europe	1.1	1.5	2.6
North America	1.1	1.6	3.3
New Zealand	1.4	1.5	1.9
Other overseas	1.3	1.5	1.3

Passenger Arrivals in Tasmania

In July 1985 the *Abel Tasman* took over the Melbourne–Devonport passenger service from the *Empress of Australia*. From figures of arrivals during its first two full years of operation, it is apparent that the larger capacity ferry has achieved an increase in the total passenger traffic between Victoria and Tasmania.

8.3 PASSENGERS ARRIVING IN TASMANIA

Period	By air		By sea	Total
	Interstate	New Zealand		
1980	533 534	472	57 146	591 152
1981	520 601	9 762	61 336	591 699
1982	516 140	6 863	60 767	583 770
1983	493 075	7 004	63 587	563 666
1984	512 257	7 054	61 039	580 350
1985	550 045	8 419	69 113	627 577
1986	524 342	10 136	95 139	629 617
1987	526 517	9 446	88 343	624 306

Source: Department of Tourism.

This fall is partly compensated by increases in visitors from other states but the most significant compensating trend is the increase in the number of overseas visitors rising from just under 5 per cent in 1978 to just over 9 per cent in 1986. Of these, most are from Europe, North America and New Zealand.

Most visitors, around 70 per cent, come to holiday; about 20 per cent come for business reasons.

8.4 REASON FOR VISITING TASMANIA (%)

Reason	1978	1981	1986
Holiday —			
To meet friends or relatives	28.9	25.8	25.0
Fly/drive tour	n.a.	n.a.	24.1
Coach tour	5.9	6.7	4.8
Other holiday	36.3	37.1	18.9
Other —			
Sporting event	4.0	4.1	2.6
Convention	3.6	4.3	5.3
Business, other purpose	21.3	21.9	19.3

Although the proportion is falling, more holiday makers come to see friends and relatives than for any other reason. In 1986 an estimated 72 000 holiday visitors came to Tasmania to see friends and relatives compared with 83 000 in 1978.

About half the visitors include the Port Arthur penal settlement on their itinerary; approximately a third go to Mt Wellington in Hobart, the Gordon river on the West Coast and the Cataract Gorge in Launceston. The Gordon River, (up 7.5 per cent since 1981) and Cradle Mountain (up 5 per cent since 1981) are the attractions that have increased most in popularity in recent years.

8.5 PLACES IN TASMANIA VISITED (%)

	1981	1986
Port Arthur historic site	51.2	48.9
Lake Pedder	18.4	14.5
Mt Field National Park	16.8	17.5
Mt Wellington	38.9	32.9
Mt Nelson look-out	19.5	16.4
Coles Bay/Freycinet Peninsula	13.1	15.2
Cataract Gorge	37.6	36.3
Central highlands/Great Lake area	13.0	17.7
Mole Creek caves	12.5	15.1
Cradle Mountain	11.3	16.1
Lake St Clair	19.8	20.9
Gordon River	23.5	31.0
Hastings Caves	n.a.	12.0
Maria Island National Park	n.a.	2.7
Bruny Island	n.a.	4.7
Hartz Mountains National Park	3.0	n.a.
Far south-west (Port Davey area)	n.a.	2.1

Among activities undertaken, sightseeing and touring, and visiting historic sights are still the most popular. The casinos still attract about 50 per cent of visitors while bush walking has increased in popularity significantly.

8.6 HOLIDAY ACTIVITIES UNDERTAKEN IN TASMANIA (%)

Activity	1978	1981	1986
Visiting casino	52.9	55.3	53.2
Bushwalking or climbing	27.2	22.4	31.1
Organised sport	6.5	5.3	4.7
Visiting historic sites	62.2	58.2	58.5
Sea fishing	7.4	6.6	4.7
Trout angling	5.0	3.8	3.6
Sightseeing and touring	68.7	66.5	60.8
Snow skiing	1.3	0.8	0.6
Canoeing or boating	5.5	5.1	5.0
Scenic flights	2.5	1.9	3.8
Day or half-day cruises	n.a.	n.a.	33.9

Most visitors stay with friends or relatives, although the percentage has declined. The offsetting change has been the increased occupancy of commercial holiday unit accommodation.

Conservation and Restoration at Port Arthur

Over recent years Tasmania's most popular tourist destination, the historic Port Arthur penal settlement, has been the site of Australia's largest ever conservation and restoration program, including a seven-year $9 million project funded by the Tasmanian and Commonwealth governments and the establishment of an authority to manage its future. Restoration began in the 1970s. After two years of research conducted by the University of Tasmania and the CSIRO into convict made bricks and the history of the settlement, the task of preservation began.

The conservation of the penitentiary and bakehouse recently won an award from the Royal Institute of Architects. The penitentiary also won the Australian Engineering Award for Excellence, for part of the reinforcing work. The restoration work has enabled visitors to view the ruins at close range without fear of damaging the historical structures.

In the latter half of 1987 control of Port Arthur was placed in the hands of a new government organisation, the Port Arthur Historical Site Management Authority. The aims of the Authority include ensuring preservation and maintenance of the penal settlement and co-ordination of archaeological activities in conjunction with establishing the site as a commercially viable enterprise. In an effort to attain these goals, the Authority accepted the recommendation of a government committee and began charging a general admission fee from 17 October 1987. Money raised from the toll is put back into the site to help pay the wages of 26 staff, maintenance costs and conservation of the buildings.

In early October 1987 the manager of the new authority, Mr Richard Wesley, unveiled a five-year plan aimed at significantly improving the Port Arthur settlement as a tourist attraction. Some of his recommendations included:

- a working farm in the style of the original one at the settlement;
- displays of brickmaking, blacksmithing, and craftwork, which would create local employment opportunities;
- computerising the site's convict records so that visitors can retrieve information on relatives at the touch of a button;
- banning cars from most areas and replacing all modern signs and fences with period replicas;
- replanting original avenues of trees and roses;
- establishing a resource centre on the site to house 30 000 historical photographs of Port Arthur in addition to models, books, artefacts and information.

In addition the Authority has plans to promote the whole Tasman Peninsula area as a place of interest to the visitor, thereby ensuring the maintenance of Port Arthur as Tasmania's premier tourist destination.

8.7 ACCOMMODATION USED BY VISITORS TO TASMANIA (%)

Accommodation	*1978*	*1981*	*1986*
Friends' or relatives' house	42.1	38.0	37.7
Hotel, motel or guesthouse with private facilities	27.8	31.6	28.4
Tent, hut, cabin, on-site caravan in camping area with amenities	6.5	5.5	6.2
Tent or hut in wilderness area or on other public land without amenities	2.2	2.3	2.4
Motorised camper	4.1	3.7	4.6
Commercial holiday unit	2.1	3.2	7.8
Towed caravan	1.2	1.9	1.4
School or residential college	2.4	2.6	2.1
Other	9.3	8.9	8.0

During 1987, holiday unit establishments have provided a significant expansion in tourist accommodation. Both the number of units available and the number of accommodation nights provided have increased by over 56 per cent while the rate of occupancy has remained fairly constant.

8.8 ACCOMMODATION CAPACITY, TASMANIA

Accommodation establishment	*At December*		
	1981	*1986*	*1987*
Hotel rooms with private facilities	2603	2837	3063
Motel rooms	1488	1447	1412
Holiday units	n.a.	509	686
Caravan park sites	4850	5892	5803

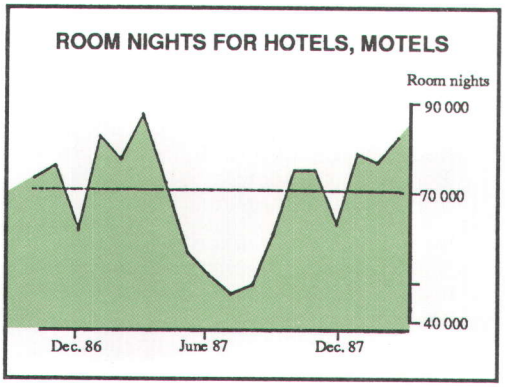
Some expansion has also occurred during the past five years in the number of caravan sites available, increasing by almost 20 per cent.

This increase in sites has resulted in a decrease in overall occupancy rates for caravan sites of almost five percentage points.

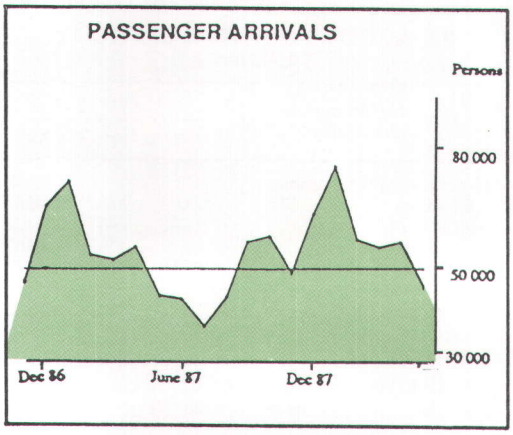
8.9 ACCOMMODATION OCCUPANCY RATES, TASMANIA (%)

Year	*Hotel, motel rooms*	*Holiday units*	*Caravan park sites*
1981	52.4	21.5	n.a.
1983	48.0	22.3	58.6
1984	50.3	22.2	58.1
1985	54.5	21.7	61.6
1986	52.7	22.0	56.6
1987	50.0	22.5	54.0

Occupancy rates for all types of accommodation establishments exhibit marked seasonality. The winter months of July, August and September have the lowest occupancy rates while January, February, March, have the highest rates.



Seasonality in occupancy reflects the pattern of passenger arrivals into the State; peak months are December and January while June and July are generally the months in which fewest arrivals occur.



8.1.1 New Directions in Tourism

Taken from an article by Mr Gordon Dean, Director of Tourism Tasmania, published in the Advocate, 25 August 1987.

As Tasmania approaches the 1990s, significant new developments are under way to ensure the tourism industry continues to develop and expand.

Some of the most significant moves are directed towards international markets, Japan and North America in particular, backed by emphasis on major domestic markets and the continuing development of infrastructure in Tasmania.

While growth in the domestic travel sector in southern States has flattened out, international travel to Australia is buoyant.

Tasmania is addressing both areas in an aggressive manner as the State moves to lift its share of international visitor arrivals and consolidate the inflow of visitors from its major interstate markets.

Perhaps the most important internationally-orientated development has been the inauguration of the new Melbourne–Hobart Qantas service, which is expected to open up major potential new tourism markets for Tasmania.

The new weekly service links Tasmania into inbound flights from London, Bahrain, Frankfurt, Bangkok, Singapore, Hong Kong, Tokyo, Honolulu, San Francisco, Los Angeles and Fiji through Sydney and Melbourne.

As a result, Tasmania can be promoted and sold as a truly international visitor destination as part of an overall Australian package, for example, through the 'See Australia' fare package from the west coast of the U.S. and Canada.

The thrust into international markets was underlined by a combined Government and private sector task force visit to the U.S., Canada, Japan and Hong Kong in 1987.

This mission, conducted in conjunction with the Australian Tourist Commission, the Japan Association of Travel Agents and Tasmania's overseas representatives, was aimed at maintaining and building Tasmania's profile in these potentially vital markets.

One example of Tasmania's international attractions was the recent wedding of the Japanese film stars Hiroshi Fujioka and Keiko Torii.

That such celebrities chose Tasmania for their wedding — and the attendant publicity — was a major coup for the State.

A 20-minute documentary, commissioned by Tourism Tasmania, was shown on the five national Japanese television channels, reaching an audience of more than 60 million people.

It is conservatively estimated that the resulting publicity was worth at least $25 million to Tasmania.

Within Australia the major autumn promotional campaign, with the theme, Tasmania — It's a Temptation, was one of the most significant promotions undertaken by Tasmania with a budget of $1 million.

The autumn campaign and brochure launch were supported and extended by a promotion campaign highlighting the State's special and unique winter attractions — Time to Share in Tasmania.

In terms of people actually travelling to Tasmania, the Abel Tasman carried increased passenger loadings and showed a two per cent growth for the 1986–87 financial year.

In addition to the new Qantas Melbourne -Hobart service, major airport expansion occurred elsewhere in Tasmania; for example, the upgrading of Wynyard airport to jet standard.

There have been a number of other developments in the tourism industry including the opening of the new $50 million 234-room Hobart Sheraton Hotel in August 1987.

In addition it is becoming increasingly obvious that Tasmania's renowned wilderness areas hold enormous tourism potential. They could become multi-million dollar attractions to interstate and overseas visitors alike, if developed carefully in harmony with the environment.

Already, expressions of interest have been invited to provide environmentally compatible tourist accommodation facilities at Warners Landing on the Gordon River.

Following these expressions of interest, any projects ultimately approved will be referred to the World Heritage Council before going to the private sector for development plans.

One particular area which will sell Tasmania at the 'shop-front' level is a new computer packaging system being introduced by Tourism Tasmania.

Called CARS (Central Automated Reservation System), it will give speedy access to all facets of the Tasmanian tourism product.

It will also facilitate holiday bookings for visitors to the State.

CARS is at the forefront of retail and package selling in the Australian tourism industry.

Some other specific examples of new development in Tasmania's tourism industry include —

- A $5 million upgrade of the Cradle Mountain Lodge, on the verge of the Cradle Mountain -Lake St Clair National Park. The project involves both a substantial upgrading of the existing lodge facilities, as well as new developments geared towards an international and national growth in adventure travel. The first phase, including 24 cabins and extended dining and other facilities, was completed for the start of the 1987–88 tourist season;
- Development of Tasmania's first major fun park, Serendipity, which opened at Devonport in November 1987. The $4 million fun park is being built in three stages;
- Significant road network upgrading in the north-west and on the west coast, facilitating additional tourist traffic through the far north-west, and providing new major road links. These will give visitors new alternatives as they move around the State and eliminate to a much greater extent access and return along the same route, thereby opening up new terrain to visitors and Tasmanians.

Tourism Industry Wins Awards

In October 1987, the tourism industry in Tasmania again won acclaim when popular tourist destinations were judged winners at the Australian Tourism Awards held in Perth, Western Australia.

The Launceston Federal Country Club Casino gained first prize as Australia's premier resort and Cradle Mountain Lodge was judged the nation's best specialist accommodation.

In the restaurant section Hobart's Japanese restaurant, The Sakura, was highly commended. The Tasmanian Tourism Industry Training Council and the Tasmanian College of Hospitality at Drysdale House were also highly commended in the industry training section.

In addition a documentary from Tas. TV, Taylor's Tasmania, was highly commended in the media section and the Tasmanian Broadcasting Network's Tas. Travel won the radio section.

8.1.2 Tasmania's Wilderness: A Tourist Destination

by Edward Gall

The western Tasmanian wilderness is one of only three temperate wilderness areas of any substantial area remaining in the Southern Hemisphere. With improved access and recent publicity, the area has become an increasingly important recreational area with bushwalking and rafting being major activities.

The core of the wilderness area is contained in three contiguous national parks: the Cradle Mountain–Lake St Clair National Park (131 915 ha) which incorporates parts of the central highlands; the Franklin–Lower Gordon Wild Rivers National Park (181 075 ha) which includes the Franklin and Lower Gordon rivers and peaks such as Frenchmans Cap; and the South West National Park (442 240 ha) consisting of the rugged ranges of the South-West and the South Coast. Much of the area adjacent to these parks is also wilderness. Management of the area has been by the National Parks and Wildlife Service and more recently by the Department of Lands, Parks and Wildlife.

Wilderness use is seasonal for nearly all activities. The main period of use is from December to April with a distinct maximum during the Christmas–New Year summer holiday period.

Bushwalkers

Some characteristics of bushwalkers have remained relatively constant in the past 15 years while others have shown change. The sex ratio has remained close to two-thirds male in every survey undertaken.

The education level achieved is high and has remained constant with about 60 per cent of bushwalkers having completed tertiary qualifications.

However, the relative age of bushwalkers has been undergoing a gradual evolution. Recently the age distribution has become more even than in the early 1970s when young adults constituted most of the group. In 1986–87, 40 per cent of walkers were aged 30 or older compared with 22 per cent in 1971–72. There are many reasons why there are more mature walkers: the increase in the age of the young walkers of the early 1970s when bushwalking was a quickly growing activity; increased publicity through media coverage of the wilderness controversy; increasing accessibility; the perceived increase in the value of wilderness and wilderness activities; an increased amount of leisure time; and the development of technological bushwalking equipment which makes the activity more comfortable and safer.

In 1971–72 nearly half of the bushwalkers were Tasmanian but this had dropped to a quarter by 1986–87, with the percentage of Tasmanian walkers being exceeded by Victorians. Rather than indicating a decrease in the number of Tasmanian bushwalkers, it probably indicates a relative increase in the absolute numbers coming from other States, in particular Victoria and New South Wales. More bushwalkers are also coming from overseas. The relative proportion has increased from just two per cent in 1971–72 to nine per cent in 1986–87.

8.10 USUAL PLACE OF RESIDENCE OF WILDERNESS WALKERS (%)

Place of residence	*1971–72*	*1977–78*	*1986–87*
Tasmania	45	31	25
Victoria	21	27	27
New South Wales	21	20	24
South Australia	4	7	7
Other Aust. States and Territories	7	10	8
Overseas	2	5	9

Users of the Franklin River

The Franklin River is one of several rivers suitable for rafting in western Tasmania. It is by far the largest remaining undammed river and has the most use. First successfully canoed in 1958, fewer than 100 people per year were rafting the river until the early 1970s. During the peak of the Gordon below Franklin dam controversy in 1982–83, the number of users peaked between 1 500 and 2 000. Since then the number has fallen and stabilised to an estimated figure of about 500 people annually.

Rafting is a young person's sport with 85 per cent of rafters in 1983–84 aged between 19 and 39.

In 1981–82 only 10 per cent of rafters were female. By 1983–84 this had increased to 20 per cent. As with bushwalkers, rafters are well educated. For example, in 1983–84, of those 25 years of age or older, 73 per cent held degrees or diplomas. On average, 90 per cent of users were rafting the river for the first time.

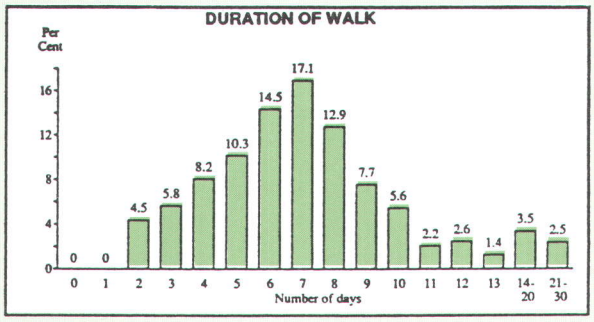
Rubber rafts were the most popular form of transport with consistently over 90 per cent of people using them. Most other people used kayaks. During the course of trips, activities other than rafting are frequently engaged in. The surveys have shown that over half of users do some caving, approximately 40 per cent have bushwalking side trips and in 1984–85, 21 per cent climbed the mountain Frenchmans Cap.

Results of Recent Surveys of Wilderness Users

The survey which contains the greatest range of detailed information is Tim O'Laughlin's 1986–87 Wilderness Walker Survey, held in association with the Wilderness Education Project of the National Parks and Wildlife Service. The survey was administered by trained travelling rangers and because there was a large sampling fraction, the results have relatively low standard errors. Users of all of the major tracks were included in the survey.

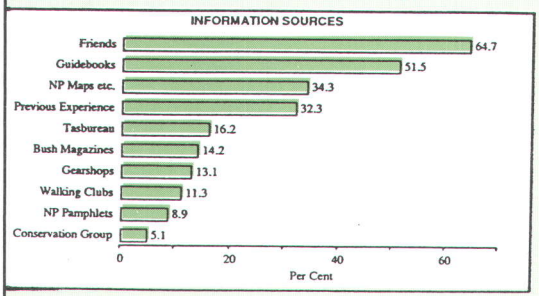
Duration of Walks

The average duration of trips into wilderness areas were seven days. 55 per cent of respondents spent between five and eight days on their walk and six per cent of them were doing trips of 14 or more days duration.



Information Sources

Information for planning the trip came from a wide array of sources. The most popular source of information was friends (65 per cent) which demonstrates the importance of personal communication between bushwalkers. Guidebooks and maps were also of great importance.



Survey Source

The first survey of wilderness users was carried out in 1971–72 and since then several others have been carried out. The major surveys are:

- Sandra Bardwell's 1971–72 Survey of the users of the main tracks in South-West Tasmania.
- Satwant Calais' 1977–78 Survey of Cradle Mountain–Lake St Clair National Park Bushwalkers.
- Bernard Carlington's 1981–82 Survey of Cradle Mountain–Lake St Clair National Park Bushwalkers.
- Bernard Carlington's 1981–82 to 1984–85 Survey of Wilderness Rafters in the Franklin–Lower Gordon Wild Rivers National Park.
- Tim O'Loughlin's 1985–86 to 1987–88 Wilderness Walker Surveys.

Wilderness Management

Most of the walkers surveyed recognised a need for limited access to wilderness areas in order to avoid damage through overuse. The condition of walking tracks was of major concern with 67 per cent of walkers finding them 'deteriorating' or 'heavily damaged'. In an effort to overcome this problem, 64 per cent of walkers wanted a limit on party sizes and 76 per cent agreed that tracks and campsites should be upgraded so that more people could use them without damaging the environment.

SUPPORT OF WALKING TRACK MANAGEMENT

Management option	*Yes %*	*No %*	*Uncertain and no reponse %*
A limit on party sizes	64	19	17
A limit on the number of walkers	40	34	26
The closing of damaged campsites and tracks	53	19	28
Upgrading of tracks and campsites	76	9	15

8.2 SPORT

Tasmania provides its residents and visitors with abundant opportunities to take part in sporting activity, either directly as participants or indirectly as spectators. Few Tasmanian towns are without football or cricket ovals, lawn bowls greens, swimming pools, cycling tracks or sporting centres providing facilities for basketball, netball, badminton and similar sports. The coastline, whilst rugged and in places, treacherous, provides excellent boating and surfing venues which lure many Tasmanians to the water and provides a focal point for the world famous Sydney to Hobart yacht race.

It is no wonder then, that for its population size Tasmania has provided an impressive register of national and world class sporting heroes, including Darrel Baldock, David Boon, Danny Clark, Doug and Bill Youd, Bill Emmerton, Helen Gourlay, Peter Lawson, Geoff Ayling, Ian Davies, John Goss, David Connor, Stuart Hamilton, James Giannaros, Denise Millikan, Penny Gray, Michael Grenda, David Foster and Don Calvert.

8.2.1 Sporting Achievements

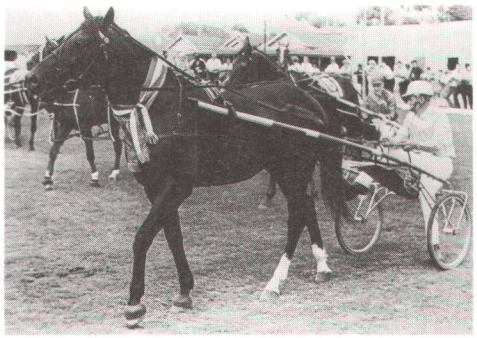
During 1986–87 Tasmanians continued to perform successfully at the national and international level with several champions achieving world-wide recognition.

Danny Clark, who has ridden in Europe since the mid-1970s, was named the Tasmanian Sports Champion for 1987 following two outstanding years on the European six-day cycling circuit. In 1987 he won six events and came second in eight, out of a total of 15 events. In the previous season he won eight out of eleven six-day races.

In 1986 this title was won by axeman David Foster for international success in woodchopping. In that year he won 17 world titles and finished with six out of seven championships at Sydney's Royal Easter Show, adding to his tally of 71 world titles, 65 Australian titles and 400 State and interstate titles.

David Boon also had a successful year in 1987, being named International Cricketer of the Year (1987–88) following good performances in the Australian side during test series and World Series Cricket games. He finished the test series with 237 runs at a 47.40 average and the World Series Cricket preliminary games with 303 runs at 37.38. David Boon was the first Australian to win the award since Bruce Yardley of Western Australia in 1981–82. Earlier in the year David had also played a prominent part in Australia's victory in the World Cup, which was played in India and Pakistan. In the final, where Australia defeated England, David was named Man of the Match. In 1986 he won an Advance Australia award for his contribution to sport.

Champion Pacer Dies



1987 saw the death of Tasmania's most famous pacer, Halwes, at the age of 28. Halwes dominated harness racing throughout Australia and Tasmania during the 1960s. He won 53 races from 68 starts with lifetime earnings of more than $90 000. Halwes' biggest wins included the prestigious Miracle Mile in Sydney and 3 heats in the 1968 Inter-Dominion in New Zealand; however he had to be scratched from the final because of a split hoof. Halwes established an Australasian record when he ran 1:57.3 in a time-trial at Harold Park in Sydney, fast even by today's standards. Halwes was also a success at stud where he produced On The Map, a Western Australian horse that went to Sydney and America and won in even faster times than Halwes himself.

Paul Burnell (a 17 year-old yachtsman) successfully defended his world junior cadet sailing title in 1987, while Garry Smith and David Connor were selected in the Australian Olympic team to sail in the Flying Dutchman class at the Seoul Olympics.

In weightlifting Gino Fratangelo broke the Australian record in the 100 kg class and came thirteenth in the World Weightlifting Championship held in Czechoslovakia. In junior weightlifting, Jason Roberts won the Australian under 20, 95 kg title and the Australian Youth title.

In Track and Field, Troy Bennett became the new Australian under 20 champion winning the 200 metre athletic title, while Todd Apted won the Australian under 20 decathlon and Joanne Sinclair–Burke won the Australian under 20 heptathlon title.

In canoe slalom, Lindsay Binnings in K1 class and Peter Eckhardt in C1 class gained number one rankings in the World Championships held in France in July.

Brett Johns won the 1987 Australian Amateur Golf Championship which was held at the Royal Hobart Golf Club and also represented Australia in test matches against New Zealand.

Other notable achievers include Dean Lampkin, who successfully defended his Australian under 95 kg judo title, and Dean Rose who broke the Australian 3000 metres walking record in athletics.

8.2.2 Government Support

Sport in Tasmania and Australia generally has developed from a purely local recreational activity to participation at state, national and international level. Top level sport in the 80s has become materialistic and commercialised, reliant on government and corporate sponsorship to ensure its continued success or survival.

Government involvement in developing facilities and providing assistance to sports events, sportsmen and sportswomen was abundantly evident in 1987. The Tasmanian Government alone, through the Department of Sport and Recreation, distributed grants totalling nearly $534 000 to various State sporting associations. Some of the major benefactors included the Tasmanian Australian National Football League, the Tasmanian Basketball Association, the Athletic Association of Tasmania and the Tasmanian Cricket Council. Grants to these four associations for such purposes as sports development and national and international championships amounted to over 25 per cent of total grants paid by the Department in 1986–87.

8.11 MAJOR STATE GOVERNMENT SPORTING GRANTS, TASMANIA, 1986–87

Association	*Amount ($)*
Tasmanian Australian National Football League	61 575
Tasmanian Basketball Association	35 748
Athletic Association of Tasmania	23 536
Tasmanian Cricket Council	16 780
Tasmanian Amateur Swimming Association	16 453
Equestrian Federation of Australia (Tasmanian Branch)	15 330
Tasmanian Golf Council	14 015
Judo Federation of Australia (Tasmanian Branch)	13 726
Tasmanian Squash Racket Association	13 025
Tasmanian Yachting Association	13 000

Recognition that the development of appropriate facilities is fundamental to increasing participation and performance in sport has led to government involvement and funding for the development of sporting facilities such as the Tasmanian Hockey Centre at Cornelian Bay. The centre was developed at a cost of almost $2 million providing players with the most advanced synthetic playing surface available and a range of up-to-date amenities. The centre hosted its initial test match in August 1987 when Australia played Spain, resulting in a 5–1 win to Australia.

Another major development was the Tasmanian Netball Centre. The Centre's estimated cost was $1.7 million and opened on 12 December 1987. As part of the State/Commonwealth Bicentennial Commemorative Program the Tasmanian and Commonwealth governments jointly contributed toward the $1.5 million upgrading of facilities at the Dowling Street Sports Complex in Launceston. This development included the construction of a new cricket oval for use by the Northern Tasmania Cricket Association. In addition a $900 000 athletic centre is being built at Penguin. This centre will provide an eight-lane synthetic track.

Governments have also shown significant commitment to sponsoring sporting events, individual sportsmen, sportswomen and teams. For example, the first Australian Masters Games was held during December 1987. The games attracted 4 200 competitors from all states of Australia and 12 overseas countries. The games were hailed as an administrative, financial and sporting success. Entrants participated in 34 sports resulting in many records being broken. Top class venues were used including the Lake Barrington rowing course and the international Hockey Centre at Cornelian Bay.

Tasmanian Institute of Sport

The Institute was established in 1985 to provide scholarships to give elite and potentially elite athletes a better chance to improve their level of performance. The Institute is situated on the campus of the Tasmanian State Institute of Technology in Launceston and commenced operation in February 1986.

Scholarships 1986–87

The Government contributed $100 000 for scholarships in 1986–87. These scholarships are based on a twelve-month schedule of training and competition as outlined by the candidates. Scholarship money may be used for sports science, sports medicine, gymnasium expenses, sports psychology, competition expenses, purchase of equipment approved by the Institute, attendance at national training camps and con-

centrated training sessions at the Australian Institute of Sport.

For the 1986–87 year, 122 scholarships were provided to athletics, boxing, canoe slalom, cycling, equestrian events, hockey (men's and women's teams), judo, netball, orienteering, rowing, sailing, swimming, water-polo, weightlifting and windsurfing.

Individual scholarship funding is divided into three categories — international, national, State/promising performer. The successful applicants were:

- International standard: $4 000
  Gino Fratangelo, weightlifting
  Stuart Lester, equestrian
  Lindsay Binning, canoe slalom
  Jocelyn Millar–Cubitt, athletics
- National awardees: $2 500
  Peter Blackwood, windsurfing
  Tim Jamieson, cycling
  Roger Crosswell, boxing
  Judith Greaves, equestrian
  Dean Lampkin, judo
  Helen Lewis, judo
  Garry Smith, sailing
  Paul Burnell, sailing
  Paul Wyatt, sailing
- State/Promising performer category: $2 000
  Michael Dowling, orienteering
  Peter Taylor, judo
  Mark Vucak, canoe slalom
  Stephen Walker, sailing
  Jason Roberts, weightlifting
  Troy Bennett, athletics
  Joanne Sinclair–Burke, athletics
  Todd Apted, athletics
  Iain McGregor, swimming
  Adrian Triffett, swimming
  Jonathon Males, canoe slalom
  Alison de Groot, swimming
  Jan Ware, athletics
  Paul Dobson, cycling

Performance and Achievements

Scholarship holders have recorded significant results in their respective sports, indicating that the Institute is having a positive influence on the standard of sport in Tasmania. For example, Paul Burnell retained his world junior cadet sailing title, and Gino Fratangelo broke the Australian record in the 100 kg weightlifting.

In addition, Joscelyn Millar–Cubitt was runner up in the Australian long jump titles while Peter Blackwood was placed third in the Australian Heavyweight Windsurfing Championships.

A number of other athletes have broken State records and several Tasmanian Institute of Sport team squad members, particularly in men's hockey and women's netball, have gained State selection and made national training squads.

8.3 RELIGION

The number of Tasmanians indicating a religious affiliation has decreased in recent years. In the 1986 census 326 759, or just under 75 per cent of the population, stated that they were adherents to various religious groups, compared with just over 76 per cent in 1981 and almost 81 per cent in 1976. This trend is also evident in Australia as a whole with the number of religious adherents falling from almost 80 per cent in 1976 to 75 per cent in 1986.

8.12 RELIGIOUS ADHERENTS, TASMANIA (persons)

Year	*Christian religions*	*Other religions*	*Total population*
1976	324 241	779	402 865
1981	317 415	1 267	418 962
1986	324 792	1 967	436 353

8.13 RELIGIOUS AFFILIATION, TASMANIA, 1986

Religion	*Persons*
Christian —	
Anglican	154 748
Baptist	8 092
Brethren	3 856
Catholic	80 479
Congregational	1 241
Churches of Christ	2 046
Jehovahs Witness	2 062
Latterday Saints	1 414
Lutheran	1 753
Oriental Christian	81
Orthodox	1 960
Pentecostal	1 953
Presbyterian	12 084
Salvation Army	3 437
Seventh Day Adventist	1 413
Uniting Church	36 724
Other Protestant	3 034
Other Christian	8 415
Total Christian	324 792
Other Religions —	
Buddhist	438
Hindu	305
Jewish	160
Muslim	569
Other non Christian	495
Total other religions	1 967

Ecumenical Activity in Tasmania 1986–87

by Rev. John Minchin
General Secretary of the Tasmanian Council of Churches

Tasmanian ecumenical relationships experienced a high and symbolic moment on November 27th 1986 during the Papal visit to Hobart. The then President of the Tasmanian Council of Churches, Anglican Archdeacon, the Venerable D.W. Warburton, officially represented the Council at the Papal Mass. Such acknowledgement of the significant place of the Tasmanian Council of Churches (TCC) within the Tasmanian religious community is substantiated by any review of ecumenical activity in the past two years.

Tasmania for many years has been served by a vigorous and widely representative ecumenical movement. The TCC was the first State Council of Churches to admit to membership a Roman Catholic diocese. This occurred in 1970. Victoria did not follow suit until 1979, and it was only in 1987 that South Australia and Western Australia took similar action. Tasmania is still unique in having within the membership of its Council of Churches both the Baptist Church and the Christian Revival Crusade.

Beyond these three, the other six member churches are the Anglican Church, the Salvation Army, the Churches of Christ, the Greek Orthodox Church, the Society of Friends and the Uniting Church in Australia.

This diverse ecumenical council has pursued some vigorous decision making and activities over the past two years. Its work centres primarily on four Commissions which provide opportunity for specific action designed to be of benefit to the whole church.

Issues of theological and doctrinal division and unity are addressed by the Faith and Order Commission. A lively forum has developed over the years for the sharing of insights on matters of faith and practice which cause division within the Christian community of Tasmania and beyond.

The Christian Bowl Appeal of the Australian Council of Churches has been supported through the work of the World Justice and Development Commission. The 1986 Appeal raised $73 000 for a wide variety of aid projects amongst disadvantaged or oppressed people. These included projects in Africa, Asia, the Middle East, Latin America and the Pacific, as well as assistance to Aboriginal Australians and for work amongst refugees. The Com-



Pope John Paul II being met by the Most Reverend Sir Guilford Young D.D. (deceased March 1988).

mission for World Justice and Development has worked on a number of the complex issues affecting our society — nuclear energy, peace and disarmament, overseas aid and relationships with aborigines. For the first time, in 1986–87, the TCC was able to employ a Development Education Worker, through the Community Employment Programme, to assist in raising the awareness of the Tasmanian community on third world development issues.

The Church and Society Commission in 1987 adopted as its major project the holding of a major Conference on AIDS in 1988. The Conference 'AIDS — Church and Community' is an attempt by the churches to address both the complexities and urgent needs associated with this issue.

A major development in 1987 was the formation of a TCC Commission on Education. Under the leadership of a professional educationist, the Commission is addressing three major areas. For many years there has been informal co-operation between denominational bodies providing religious education in schools. Now, the work is co-ordinated under the umbrella of the Council of Churches.

A major gap in the life of the church in Tasmania has been the lack of a facility for theological education at tertiary level. The Theological Education Working Group now provides a number of tertiary courses in Hobart, towards tertiary qualifications awarded by the Melbourne College of Divinity and the Australian College of Theology.

Co-operative action in equipping church members for their tasks in ministry and mission is the goal for the General Ministry Training Group. The aim is for denominational bodies to open up their training opportunities to members of other churches.

Among the Christian denominations present in Tasmania, the largest is the Anglican church, with almost 48 per cent of all Christian believers. The other main groups include the Catholic church with 25 per cent, the Uniting church with 11 per cent and the Presbyterian church with nearly 4 per cent.

Among non-Christian religions the largest groups include Muslims accounting for 29 per cent of non-Christian believers, Buddhists with 22 per cent, and Hindus with 15.5 per cent.

While the overall number of people indicating a religious affiliation has declined in proportion to the total population, there has been a small but steady increase in the growth of non-Christian religious groups in Tasmania. In 1976 0.2 per cent of the population was affiliated with non-Christian religions. In 1981 this had grown to 0.3 per cent and by 1986 had reached 0.5 per cent and is partly attributable to an increase in the number of Asian immigrants in the State's population.

The most notable change in religion in Tasmania has been the large increase in the number of people not affiliated with any religion. In 1976, 6.9 per cent of the State's population professed no religious affiliation. This compares with 8.6 per cent in 1981 and 11 per cent in 1986. While this pattern follows that of Australia as a whole, the proportion of Tasmanians without a religious affiliation has remained slightly lower than the national average throughout the past decade. For example, in 1976 the proportion of Australians stating no religion was 8.3 per cent, 1.4 per cent more than Tasmania, and in 1986 the national proportion, at 12.7 per cent, was 1.7 per cent more than Tasmania's.

8.14 PERSONS WITH NO RELIGION, TASMANIA

Year	*Tasmania*	*Australia*
1976	27 624	1 130 300
1981	36 222	1 576 718
1986	47 852	1 977 464

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Chapter 9

EDUCATION

In 1869 Tasmania became the first colony in the British Empire to make education compulsory. In 1898 school attendance was made obligatory between the ages of seven and thirteen and in 1912 between six and fourteen years. In 1946 Tasmania became the only Australian State to make attendance compulsory up to the age of sixteen, the starting age remaining at six. Late in 1984 amendments to the *Education Act* enabled the Education Department to provide education programs for severely handicapped children up to the age of 18 in places other than recognised schools.

Since 1945 the task of Tasmanian educational authorities, as in other Australian States, has been to provide more schools, more teachers, and better facilities within pressures to restrain expenditure and cater for a wider range of curriculum offerings. The principal factors exerting these pressures were a rapidly growing school population, changed attitudes to education resulting in increased demands for secondary and tertiary education, and general community acceptance of the need for better education.

In recent years the pressures have changed, with a rapid growth in unemployment, shrinking employment opportunities and technological changes placing new demands on education systems. In addition, the Federal Government has accepted a greater financial responsibility and provides funds through the Commonwealth Schools Commission and the Tertiary Education Commission.

Education in Tasmania is provided at primary, secondary and tertiary levels by government institutions and to secondary level by non-government schools.

In rural areas primary education is generally provided by small government primary schools and district high schools. Each type of school draws pupils from outlying localities. Transport is free, an example of the high priority given to meeting the educational needs of children in rural areas.

In primary schools, classes are usually heterogeneous with teachers devising programs for children of various ability levels. Pupils progress to the next grade on the basis of their individual achievement and age rather than be promoted by their ability.



The primary school curriculum is designed to cater for the intellectual, physical, social and emotional development of children during their critical formative years. The curriculum emphasises the acquisition of basic language, writing and number skills within the wider context of developing a capacity to communicate, think and value. The school's task is to provide programs that enable each pupil to develop skills appropriate to his or her stage of development and that will foster further learning. These programs also provide for creativity and arousing the imagination as well as giving the opportunity to develop initiative and logical thought processes.

Education Department policy is directed towards integrating children with special needs into normal schools. Special schools provide for children with different forms of handicap and

who are unable to benefit from instruction in normal schools. Instruction varies according to the type of handicap. In cases of physical handicap the main need is to maintain normal or near normal individual programs. Schools and classes for intellectually handicapped children follow a program that is tailored to meet individual needs.

Current Education Department policy is directed towards educating children in their local communities. However, parents are free to choose which school their child attends. There has been positive discrimination towards country children and steps have been taken to make the secondary education available in district high schools comparable with that provided in urban areas. These steps include staffing district high schools more generously than high schools and establishing annexes of senior secondary colleges in four country towns.

The secondary curriculum provides a general, comprehensive education within a framework of subjects endorsed by the Schools Board of Tasmania. Most Year 7 and 8 pupils follow a common course developed by the school and suited to their needs. In Years 9 and 10 pupils choose a program that satisfies School Certificate requirements as well as allowing them to follow personal interests. Subjects generally are assessed at three levels.

The School Certificate is awarded as a result of a system of regional moderation which has been developed to ensure comparability of standards between schools.

Senior secondary colleges were developed to concentrate specialist Higher School Certificate teaching in a few centres. The students also benefit from an intermediate step between high school and tertiary education.

General admission policy of the colleges is one of 'open door' to most courses. In recent years there has been an increase in the number of students passing directly from high and district high schools as well as an increase in mature-age students studying HSC subjects.

Colleges, especially those in the Hobart area, have expanded significantly into the area of late afternoon and evening programming of classes for the large number of mature part-time students.

Candidates normally sit for Higher School Certificate subjects at the end of the fifth and sixth years of secondary education. The certificate is awarded as a result of assessments completed in November each year which are conducted by the Schools Board of Tasmania. Requirements for matriculation are determined by the University of Tasmania.

Tasmanian Certificate of Education

As part of significant changes to the Tasmanian education system the HSC and Schools Board certificates will be replaced with the Tasmanian Certificate of Education and the method of student assessment will be altered.

The TCE, which will be a cumulative certificate covering years nine to 12, will be trialled on grade nine students in 1990 and will be fully operational by 1992. The new four year certificate will replace the present pass-fail system based on internal percentages and external HSC exam marks. Instead, a system of awards will be introduced which will be marked on the fulfilment of set subject criteria. The awards will be outstanding achievement (OA), high and satisfactory achievement, course completed, and fail. In addition, teachers will be required to write a comprehensive report on each student's competence in performing the subject criteria.

Students will also be required to keep a record of achievement for each year of their TCE. External exams will still exist in years 11 and 12 under the new certificate but the award system will be used, not credit, higher pass, fail ratings. Greater emphasis will also be placed on internal results and on other criteria such as being able to work alone, and using initiative. This will be combined to form a comprehensive portfolio for entry into the workforce.

The change in assessment procedures is designed to match and compare students to subject criteria rather than to each other.

A system of determining entry into tertiary institutions has not been finalised. The Schools Board is considering a points system for all matric level III subjects, called group C subjects. Group A and B subjects would be taken by students not wishing to go on to further education.

9.1 PRESCHOOL EDUCATION

Until 1969, government preschools were established on the initiative of groups of parents. The Education Department provided buildings but eventually recovered half its outlay from parents. From 1969 all new facilities for preschool education were provided in kindergartens attached to primary schools. There are now kindergartens which are part of primary schools and others which are not attached to primary schools. Education Department policy aims to provide kindergarten for children of four years and over on 1 January of any given year.

9.1 PRIMARY SCHOOLS, TASMANIA

Particulars	Government		Non-Government	
	1982	*1987*	*1982*	*1987*
Number of schools	170	166	40	40
Number of teachers *(a)* —				
Full-time	2 194	1 910	353	425
Part-time	85	235	45	69
Total	2 279	2 145	398	494
Males	530	517	67	96
Females	1 749	1 628	331	398
Number of pupils *(b)* —				
Males	21 395	18 777	4 144	4 676
Females	20 011	17 618	4 259	4 695
Total	41 406	36 395	8 403	9 371

(a) Full-time equivalents.
(b) Includes primary grades in combined primary and secondary schools.

Most preschools are conducted on a sessional basis (i.e. sessions of two to three hours for two to five days per week). Preschool programs generally favour the free play approach with emphasis on children's social and emotional development through creative activities. Parents often contribute by assisting at some sessions or by the purchase of play materials and educational resources.

At 1 July 1987 there were 173 government schools with attached kindergartens and 22 separate kindergartens with enrolments of 5 647 and 818 respectively.

Non-government kindergartens form a minor part of total non-government enrolment. The numbers are split fairly evenly between attached and separate kindergartens. Catholic schools have no kindergartens.

9.2 PRIMARY EDUCATION

Age of entry to preparatory classes is 5 years and for Year 1, 5½ to 6 years of age.

In Tasmania, government primary education caters for children from preparatory to Year 6. Government primary schools seldom enrol more than 600 pupils.

In 1987 there were 166 government primary schools. The majority (157) commenced with a preparatory grade and went to Year 6. There were a further 26 schools which were combined primary and secondary schools (district and district high schools). Of the 36 395 pupils enrolled in primary grades in these 192 schools, 18 777 were males and 17 618 were females. These schools had 1 910 full-time primary school teachers and 235 part-time teachers in 1987.

Non-government primary schools seldom enrol more than 400 pupils, and usually have six grades and a preparatory class.

In 1987 there were 40 non-government primary schools. Only 75 per cent (30) commenced with a preparatory grade and went to Year 6. There were a further 22 schools which were combined primary and secondary schools. Of the 9 371 pupils enrolled in primary grades in these 62 schools, 4 676 were males and 4 695 females. These schools had 425 full-time primary school teachers and 69 part-time teachers in 1987.

The percentage of all school pupils who are enrolled in primary grades had been decreasing consistently in the 1980s; however, in 1987, the percentage started to increase. In government schools there had been a fall from 59.9 per cent in 1982 to 55.6 per cent in 1986 while in non-government schools the drop had been from 54.8 per cent to 52.5 per cent. However, the percentages in 1987 for government and non-government schools were 55.6 and 53.2 respectively.

The major cause of the falling proportion of students enrolled in primary grades was the lower birth rates of the 1970s. Higher birth rates in the 1980s will reverse the trend in the next few years (as can be seen in 1987) and continue into the 1990s.

Scotch Oakburn College Centenary

Scotch Oakburn College was established in 1886 originally as the Methodist Ladies College. As premises, an Elphin Road mansion, Oakburn House built by Eliza Thomson, was chosen. The college began with 25 students and by the end of the year it had 21 resident scholars and 67 day scholars. In 1979 it amalgamated with Scotch College which was founded in 1901 by the Presbyterian Church. Scotch Oakburn College now has more than 800 boarders and day students from kindergarten to HSC.

9.3 SECONDARY EDUCATION

Almost all children attend secondary classes starting at an age from 11½ to 13 years. The first four years of secondary education (Years 7 to 10 inclusive) are catered for in high schools or district high schools which are non-selective, comprehensive and provide a broad general education. All, except two high schools in Hobart, are co-educational. The School Certificate is generally gained at the end of Year 10. The final two years (Years 11 and 12) leading to the Higher School Certificate are completed in a secondary college or annexe.

The majority of students studying HSC subjects are in their fifth and sixth year of secondary education. However, an increasing number are mature-age students — people who have not been enrolled in secondary education for at least 12 months. The increase has coincided with a large increase in part-time enrolment at secondary colleges; in 1982 there were 1 310 part-time students while in 1987 there were 2 419 part-time students of whom 1 972 were mature-age.

In 1987 there were 35 government high schools and 7 secondary colleges in the State. Thirty-four of the 35 high schools commenced at Year 7 and went to Year 10. All 7 secondary colleges had only Year 11 and 12. In addition, there were the 26 combined primary and secondary schools. Of the 28 153 pupils enrolled in secondary grades in these 68 schools 14 197 were males and 13 956 females. There were 2 301 full-time secondary school teachers and 119 part-time teachers in 1987.

In 1987 only four non-government secondary schools operated. There were a further 22 combined primary and secondary schools. Of the 8 231 pupils enrolled in secondary grades in these 26 schools, 3 888 were males and 4 343 females. There were 539 full-time secondary school teachers and 97 part-time teachers in 1987.

The trend in secondary grade enrolment is the reverse of primary grade enrolment. As birth

9.2 SECONDARY SCHOOLS, TASMANIA

Particulars	*Government*		*Non-Government*	
	1982	*1987*	*1982*	*1987*
District and district high schools	26	26	–	–
High schools	34	35	30	26
Secondary colleges	7	7	–	–
Total schools	67	68	30	26
Number of teachers *(a)* —				
Full-time	2 280	2 301	424	539
Part-time	38	119	82	97
Total	2 318	2 420	506	636
Males	1 336	1 389	263	316
Females	982	1 031	243	320
Pupils —				
Year 7–9	18 665	17 433	4 484	4 902
Year 10	5 285	6 014	1 265	1 649
Year 11 and 12	2 941	4 706	1 174	1 662
Ungraded	–	88	–	18
Total	26 891	28 241	6 923	8 231
Males	13 715	14 250	3 246	3 888
Females	13 176	13 991	3 677	4 343

(a) Full-time equivalents.

rates fell in the 1970s the proportion of pupils in secondary grades rose. In 1982, 26 891 pupils were enrolled in government secondary grades accounting for 38.9 per cent of total enrolments. By 1987 this had risen to 43.0 per cent with 28 153 pupils enrolled. Corresponding figures for non-government schools were 45.2 per cent and 46.8 per cent respectively. Total non-government secondary enrolments, like primary enrolments, have increased 19 per cent over this period from 6 923 pupils in 1982 to 8 231 in 1987.

9.3.1 Retention Rates in Secondary Schools

Apparent grade retention rates are measures of the tendencies of students to remain in secondary education from Year 7 to Year 10, Year 11 and Year 12. For example, to calculate the apparent retention rate of students in Year 12 in 1987 the number of those students in 1987 is expressed as a percentage of the number of students in Year 7 in 1982 (1982 being the year in which the 1987 Year 12 students would have normally enrolled in Year 7). The retention rate thus derived is called an apparent retention rate because the method and calculation does not explicitly take account of net changes to the school population due to migration, nor of those students who spend more than one year in the same grade.

While non-government schools generally have much higher retention rates than government schools, there has been a closing in the gap between government and non-government schools for the Year 7 to 10 retention rate. This has been brought about by the difficult job market for early leavers in the 1980s affecting mainly pupils of government schools.

9.3 APPARENT RETENTION RATES SECONDARY SCHOOL STUDENTS 1987

Years	*Male*	*Female*
7–10	93.3	95.8
7–11	39.9	50.8
7–12	29.4	36.9

In government schools the Year 7 to 12 retention rate has increased from 24.4 per cent in 1977 to 30.2 per cent in 1987. The Year 7 to 11 rate has grown from 28.2 per cent in 1977 to 42.3 per cent in 1987. The Year 7 to 10 rate, however, reflects the poor employment situation with a rate of 80.1 per cent in 1977 increasing fairly steadily to 93.4 per cent in 1987.

In non-government schools the Year 7 to 12 rate has increased from 30.9 per cent in 1977 to 44.4 per cent in 1987. The Year 7 to 11 rate has grown from 44.3 per cent in 1977 to 56.6 per cent in 1987. The Year 7 to 10 rate, while showing fluctuations over the period, has moved from 90.3 per cent in 1977 to 99.1 per cent in 1987.

9.3.2 School Locations

Thirty-three per cent of government schools are in the Hobart statistical division, 13 per cent in the Southern statistical division, 28 per cent in the Northern statistical division and 27 per cent in the Mersey-Lyell statistical division.

For non-government schools 40 per cent were in the Hobart statistical division, six per cent in the Southern statistical division, 30 per cent in the Northern statistical division and 24 per cent in the Mersey-Lyell statistical division.

9.4 APPARENT GRADE RETENTION RATES, GOVERNMENT AND NON-GOVERNMENT SECONDARY SCHOOLS, TASMANIA

Year	*Year 7–12*		*Year 7–11*		*Year 7–10*	
	Government	*Non-Government*	*Government*	*Non-Government*	*Government*	*Non-Government*
1977	24.4	30.9	28.2	44.3	80.1	90.3
1978	23.1	31.5	28.9	46.2	83.3	91.7
1979	24.8	29.9	28.9	47.2	85.0	96.6
1980	25.5	33.6	28.8	46.2	87.7	96.2
1981	24.3	*r* 33.8	30.4	*r* 49.4	86.7	95.9
1982 *(a)*	18.9	36.7	27.9	51.0	86.8	98.9
1983	22.3	35.6	33.1	55.7	88.3	97.9
1984	24.8	40.7	34.6	53.9	89.5	99.5
1985	25.5	42.0	36.6	58.1	91.2	97.9
1986	27.1	44.5	38.1	57.2	91.8	98.3
1987	30.2	44.4	42.3	56.6	93.4	99.1

(a) Data used to calculate retention rates to years 11 and 12 in government schools exclude part-time students. The exclusion of these part-time students causes an apparent decline in retention rates to years 11 and 12 in government schools between 1981 and 1982.

9.4 TERTIARY EDUCATION

From 1974 to 1986 tertiary education was free for award courses in universities, colleges of advanced education and technical and further education institutions (excluding adult education). Tertiary administration fees were introduced by the Federal Government commencing with the 1987 academic year. The means tested $250 a year (in 1987) fee applies equally to full-time and part-time enrolments. Part-time enrolments at the University of Tasmania dropped from 2 289 in 1986 to 1 786 in 1987.

9.4.1 University Education

The University of Tasmania is located in Hobart. Founded in 1890 it was the fourth university to be established in Australia. Teaching began in 1893 with three lecturers and six students, in Domain House, Hobart.

The University site at Sandy Bay was chosen in 1944. Temporary huts were used until 1957 and by 1973 all departments of the then eight faculties were housed in permanent buildings.

By 1986 the university had 11 faculties: Agricultural Science, Arts, Economics and Commerce, Engineering and Surveying, Law, Medicine, Science, the Tasmanian School of Art, the Tasmanian Conversatorium of Music, the Centre for Education and the Centre for Environmental Studies. In 1987 the university council approved a plan to amalgamate the Centre for Environmental Studies with the Department of Geography (Faculty of Science).

Students will normally have completed a full secondary education. There are quotas on new enrolments in some professional courses such as medicine and pharmacy. Although there are provisions for mature-age entry the majority of students enrol straight from school.

The University offers full-time and part-time courses as well as external study. In 1987, 60 per cent of students were enrolled in full-time study. Bachelor degree courses comprised 74 per cent of total enrolments.

Campus Developments

During 1986 and 1987 several facilities were completed, continued or started. The installation of the 26-metre radio-astronomy antenna at Mount Pleasant, the extension to the Clinical School, the conversion of Henry Jones jam factory into the Centre for the Arts, a new sports pavilion and seven student houses were all completed and officially opened. Work started on a new earth-sheltered building for the Tasmanian herbarium and a large extension to the life sciences building.

9.5 UNIVERSITY OF TASMANIA, TEACHING AND RESEARCH STAFF (a)

	1986	*1987*
Teaching —		
Full-time —		
Professors	34.0	29.7
Associate professors, teachers	47.6	44.3
Senior lecturers, lecturers, teaching registrars	243.8	241.4
Assistant lecturers, demonstrators, tutors, teaching fellows	41.9	47.7
Total	367.4	363.1
Part-time —		
Senior lecturers, lecturers	5.5	5.3
Assistant lecturers, demonstrators, tutors, teaching fellows	14.3	14.0
Total	19.8	19.3
Research —		
Full-time	69.4	71.8
Part-time	–	–
Other —		
Full-time	506.4	491.9
Part-time	32.2	30.4

(a) Full-time equivalent units.

9.6 UNIVERSITY OF TASMANIA STUDENTS

		1986	*1987*
Full-time		3 479	3 457
Part-time —	Internal	2 192	1 725
	External	97	61
	Total	5 768	5 243
	Males	3 156	2 792
	Females	2 612	2 451
Bachelor degree courses —			
Agricultural Science		55	50
Fine Art		220	239
Arts		1 081	1 011
Economics		265	199
Commerce		368	356
Education		518	432
Engineering		256	244
Surveying		42	55
Law		377	368
Music		78	90
Medicine		288	294
Pharmacy		66	69
Science		630	625
Total		4 244	4 032

Research

Like other universities, the University of Tasmania has a dual purpose, teaching and research. Research funds are received from the Federal Government through the Commonwealth Tertiary Education Commission (CTEC), from other public bodies and from the private sector. In 1986 expenditure on research was more than $5 million received from:

Commonwealth Tertiary Education Commission	1 176 797
Public bodies, industry, private foundations, members of the community	3 824 497
Total	5 001 294

Research carried out in the University covers a wide range of industrial, commercial, environmental, health, education and community topics.

During 1986 the University was involved in a major research program into the production of synthetic fuels. The research was of a strategic nature and involved research collaboration with scientists in industrial, CSIRO and university laboratories and was funded from various sources. It has been recognised that in the years ahead, failing new oil discoveries, Australia's self-sufficiency in transport fuels will decline rapidly unless synthetic fuels are produced via chemical conversion processes.

In 1987 work continued on the development of plans to establish the Menzies Centre for Population Health Research and a centre for antarctic and southern ocean studies.

9.4.2 Tasmanian State Institute of Technology

The Tasmanian State Institute of Technology is a multi-disciplinary higher education college centred in the Launceston suburb of Newnham.

In 1981 the Tasmanian College of Advanced Education transferred its base from Mt Nelson in Hobart to the Newnham campus of the Launceston Teachers College; that campus then became the centre for advanced education in Tasmania.

In 1985 the College was redesignated the Tasmanian State Institute of Technology to reflect its emphasis on the disciplines of Applied Science, Business and Information Sciences.

The growth of the Institute since 1981 has been rapid. In 1981 student enrolments were 1519 equivalent full-time students; by 1987 they had increased to 2121, an increase of about 40 per cent. The number of academic staff also increased

9.7 UNIVERSITY OF TASMANIA: DEGREES CONFERRED

Higher Degrees

Award gained	*1981*	*1986*	*1987*
Higher Doctor	–	4	–
Doctor of Philosophy	23	26	23
Master	19	73	86
Total	42	103	109

Bachelor Degrees

Course	*1981*		*1986*		*1987*	
	Honours	*Pass*	*Honours*	*Pass*	*Honours*	*Pass*
Agricultural Science	9	9	2	5	5	5
Arts	32	167	25	123	34	148
Commerce	–	31	–	47	–	62
Economics	3	24	7	29	5	38
Engineering	7	15	10	34	10	38
Surveying	–	14	2	6	–	11
Education	–	30	2	80	4	95
Special Education	–	3	–	–	–	–
Law	4	24	4	29	3	33
Medical Science	–	39	2	44	2	53
Medicine/Surgery	2	34	3	34	2	34
Pharmacy	–	12	2	13	–	18
Science	46	110	62	106	47	105
Science/Engineering	–	–	–	1	–	–
Arts/Law	1	4	3	15	3	9
Commerce/Law	–	1	–	2	–	–
Economics/Law	–	1	–	2	–	4
Science/Law	–	–	–	–	–	–
Fine Art	–	–	–	22	–	21
Music	–	–	–	21	–	6
Total	104	518	124	613	115	680

from 140 to 177 in that period, while the number of general staff increased from 104 to 126.

Perhaps the most significant change has been the phasing out of 16 courses and the introduction of 11 new ones since 1981. Examples of the on-going process of program change during this period involved the establishment of a new School of Nursing, a new School of Applied Computing, and a new Continuing Education Unit.

The School of Nursing was formed in 1981 in order to meet the changing vocational requirements of the nursing profession. A pre-registration course, the Diploma of Health Sciences in Nursing, and a post-registration course, the Bachelor of Applied Science in Nursing, were introduced. In 1988 there will be no further intakes of student nurses to northern teaching hospitals and the TSIT will assume responsibility for all pre-registration nurse education in the north of the State. By 1990 all registered nurse education in Tasmania will occur at the Institute. In 1988 the School of Applied Computing proposes to offer a new Graduate Diploma in Applied Computing (in addition to the existing Associate Diploma), while a Degree level course will be introduced in 1989.

An extensive program of building work has been initiated with the support of the State Government. In 1987 this involved the construction of teaching facilities and a 75 bedroom accommodation building. This initial program, which cost approximately $5.8 million, will be supplemented in 1988–89 by the construction of further buildings and facilities costing $3.3 million.

For many years the Institute has provided a limited range of short courses and seminars at tertiary level for students seeking a substantive program of educational or vocational enrichment, but who either do not wish, or are unable, to pursue a full award course. In response to the clear need for expanded activities in this area, the Institute established the Continuing Education Unit in 1987. Additional major programs offered to date include a major seminar 'Tasmania in the Nineties', which brought together some of the State's leading economists, politicians, and business people; a requested course for fitness leaders titled 'Fitness Leaders Certificate Course'; and a program of 'Study Skills for Tertiary Education' which was aimed at meeting the needs of those returning to study and wishing to increase their skills and confidence before embarking on a tertiary course. Through the External Studies Unit and the Study Centres in Burnie, Devonport and Hobart, Tasmanians in all parts of the State are able to pursue a higher education whilst studying at home, with the back-up of regional study centres which provide tutorial assistance and a range of study facilities.

The Institute offers a wide range of applied research and consultancy services to the Tasmanian community. There are significant ongoing research programs in the areas of Applied Science, Architecture, Business Studies, Education and Nursing. In the field of Aquacultural research a project is presently underway, in close association with the Inland Fisheries Commission, to examine the commercial production of all-female Rainbow Trout. These fish will also be triploid and therefore sterile. Early maturation of trout can greatly enhance the fish farmer's potential production. If trials are successful, the production of sea-grown Rainbow Trout in Tasmanian waters will double. The first group of all-female triploid trout will be put in the sea in April 1988. Aquaculture scientists at the TSIT are also carrying out biological investigations on a new type of sea-farm cage. It is hoped that fish in this cage will grow faster than those in conventional cages.

9.8 TASMANIAN STATE INSTITUTE OF TECHNOLOGY ENROLMENTS, TASMANIA, 1986

Field of study	*Internal full-time*	*Part-time*	*External*	*Total*
Applied Science	113	48	–	161
Visual and Performing Arts	139	44	–	183
Architecture/Building	98	41	–	139
Commercial and Business Studies	154	133	448	735
Engineering	43	79	–	122
Social Sciences	75	12	–	87
Humanities	37	34	182	253
Paramedical Studies	79	107	41	227
Education	540	315	–	855
Total (*a*)	1 278	856	684	2818

(*a*) Includes miscellaneous students.

9.4.3. The Australian Maritime College

The Australian Maritime College near Launceston is the only federally-funded college to be sited outside the ACT. Courses at the College range from certificates of technology to post-graduate studies.

The College fisheries courses include the Certificate of Technology in Fisheries Operations, which is designed to cover the knowledge requirements for the master of a large fishing vessel. The fisheries degree course teaches the importance of conservation and management of fisheries resources and also covers the marketing side of the industry. Aspects such as fisheries biology, fish chemistry, seafood handling, processing and marketing and fisheries management are covered.

The Bachelor of Engineering (Maritime) is the only full-length engineering degree offered in the north of the State. It gives specialist training, fitting graduates for careers in ports, harbours and offshore.

The College also offers courses leading to careers in the merchant navy as an Integrated Rating, or a navigating or engineering officer. Students on these courses are selected by the maritime industry through cadetships.

The Bachelor of Applied Science (Nautical Studies) offers options in ship science, hydrography, navigation and environmental science, and in sea transport and maritime business.

Between 1978 and the end of 1984 the Australian Government invested some $30 million in developing the two College campuses and installing specialised training facilities. The AMC now has the finest collection of specialist resources for maritime training in the Southern Hemisphere. Facilities include: ship handling, radar and diesel engine simulators; a towing tank and flume tank; a sea transport centre with microcomputing facilities; engineering and electronics workshops; fish biology laboratories and training vessels.

9.9 AUSTRALIAN MARITIME COLLEGE ACADEMIC STAFF AND STUDENTS

	1985	*1986*
Academic staff —		
Full-time	47	47
Students —		
Full-time	667	666
Short-courses	591	818

The College's consultancy company, AMC Search Ltd, also makes use of these facilities to provide a wide variety of advisory research and design services to the maritime and fishing industries. Work already undertaken by the company has included port modelling, testing of underwater objects and the design and conduct of special courses to suit clients' needs.

The Company has recently won contracts to model the Port Hedland Maru — a 251 000 tonne bulk carrier — for the Port Hedland Port Authority, flume tank testing of a side scan sonar for the Royal Australian Navy, hydrographic surveying at Port Latta and another contract to model a 60 000 tonne bulk carrier for the Queensland Department of Harbours and Marine.

9.4.4 Technical and Further Education

Technical and further education, which includes adult education, is provided at colleges at Hobart, Launceston, Devonport, Burnie and Queenstown and a number of separately provided but administratively linked adult education centres run by the Division of Technical and Further Education of the Education Department. Centres in Smithton, Scottsdale, Campbell Town, Oatlands and Huonville provide a more limited range of course offerings.

Technical Education

Technical courses cater for the vocational education and training needs of Tasmanians. The courses are designed in consultation with industry and on successful completion a student is awarded a certificate by the Education Department. A number of these courses have been nationally registered by the Australian Council of Tertiary Awards. In 1987 a new State TAFE accreditation system was introduced.

Associate diploma courses meet the increasing needs of para-professional personnel in areas such as engineering, accounting, computing, child care and social welfare.

Trade courses combine theoretical and practical aspects of the trade and are complementary to employer training given to apprentices. Post-trade courses are available to extend the skills and knowledge of trades people.

Vocational courses provide for non-apprentice training and include fashion, clothing manufacture, supervision, commercial and secretarial studies.

Correspondence courses for isolated students and others who are unable to attend regular classes are administered through the Hobart Technical College.

In 1985 total enrolments were 19 882 in technical courses.

Adult Education

Adult Education operates throughout Tasmania with major centres in Hobart, Launceston, Devonport, Burnie, Queenstown and Campbell Town. The southern centres at South Hobart, Eastern Shore/Rosny/Rokeby, Glenorchy, Kingston and the Huon now operate under the Domain House College of Adult Education with enrolments, administration and enquiries centralised at Domain House. Small centres operate at Oatlands and Wynyard.

A wide range of activities from whole term courses to full weekend, single day or shorter workshops is offered. Residential activities in the form of weekend workshops and longer summer school activities from The Grange Residential College at Campbell Town also feature. Subject areas include creative and performing arts, home skills, work and business skills, languages, personal well-being, owner builders, Aboriginal Education, Migrant Education, basic education/literacy etc. A feature of its work is to initiate innovative programmes and respond to community needs.

In 1987 Adult Education activities attracted 43 773 students to its programmes around Tasmania, reflecting the rapid growth since the late 1970s.

9.5 FUNDING

In recent years the Federal Government has provided the State governments with substantial financial assistance specifically for schools, universities, colleges of advanced education and colleges of technical and further education. In addition, the Federal Government has administered Australia-wide schemes of financial assistance for students for many years.

Primary and secondary education is free in government schools. Fees for the hire of textbooks and other school equipment, however, may be charged, particularly in secondary schools. The State Government provides financial assistance to parents under specified conditions for educational expenses. Assistance includes various types of scholarships, bursaries, transport and boarding allowances, many of which are intended to assist low-income families.

The Federal Government also provides a number of schemes of assistance to facilitate access to education. The Secondary Allowances Scheme (SAS), which assists families on lower incomes to maintain their children in Years 11 and 12, has been considerably expanded recently. Some non-government schools offer scholarships and bursaries to assist students.

The State Government provides the bulk of funds for government schools out of general revenue and makes per capita grants to non-government schools. About one-fifth of the total public funding of schools is now provided directly by the Commonwealth through the Commonwealth Schools Commission. In consultation with the States, the Commission advises the Federal Government on the resource needs of both government and non-government schools.

At the June 1973 Premiers' Conference the States accepted the Federal Government's offer to assume full financial responsibility for tertiary education from 1 January 1974. The Federal Government also announced in its 1973–74 Budget the decision to abolish tuition fees but in 1986 introduced tertiary administration fees from the 1987 academic year.

9.6 LIBRARIES

Tasmania is served by a network of different types of libraries, almost all of which have some computerised information and cataloguing services.

9.6.1 The State Library

The purpose of the State Library of Tasmania is to provide a comprehensive library and information service to all sections of the Tasmanian community from both its lending and reference departments. As well as working closely with other libraries in Tasmania, the State Library has extensive links with libraries on the Australian mainland and overseas.

The State library system encompasses many different services including 'outreach' facilities such as Bookmobile and Hear-a-book.

Regional Services are provided by the Hobart lending library and six regional library systems, each of which is responsible for the management of all public library services within the municipalities forming its particular region.

9.6.2 Special and Academic Libraries

Government departments and large private companies often maintain a comprehensive technical library service for their staff, especially in the area of research. Special libraries vary greatly in quality, size and in the services they provide. Many of the smaller special libraries supplement the resources of the larger libraries and most actively encourage the public, as well as their own staff, to use their services.

The University of Tasmania maintains one of the biggest libraries in the State. Apart from the central University library most departments

provide a smaller, more specialised branch library for the use of their students and staff. The Tasmanian State Institute of Technology Library in Launceston is the only one of its kind in the north of the State.

9.6.3 Education Libraries

A large number of libraries is maintained by the Education Department throughout its primary and secondary schools.

Other educational libraries include: the libraries of the various administrative sections of the Education Department, The Curriculum Centre, The Southern Teachers Centre Library, libraries within Technical and Further Education and the libraries of Independent Schools.

9.7 MUSEUMS

9.7.1 Tasmanian Museum and Art Gallery

The Tasmanian Museum and Art Gallery has its origins in early scientific groups formed in Hobart Town in the 1820s and 1830s. In 1852 the Royal Society of Tasmania established a museum which was later vested in a Government Board of Trustees in 1885. The first building on the present site, on the corner of Argyle and Macquarie Streets, was designed by the city's best-known colonial architect, Henry Hunter (1832–1892), and completed in 1863. Later additions were made in 1889, 1901, 1966 and 1979. A new entrance in Macquarie Street was opened in 1987. This provides easy access for disabled people as well as a spacious foyer. The income of the Museum is provided mainly by an annual grant from the State Government. Over 130 000 people visit the Museum and Art Gallery each year.

The Tasmanian Museum and Art Gallery houses collections in the fields of fine and applied art, zoology, geology, botany, history, anthropology and applied science. It is an integrated institution concerned with the whole range of natural and human heritage with particular emphasis on Tasmanian exhibits.

The Museum's traditional function, and still the major part of its operation today, is to collect, conserve, study and display items of cultural or scientific value to the community. It now performs a wide variety of additional roles, which include a continuing program of travelling exhibitions and a school education service which utilises the *Musbus*, a van specially equipped for transporting museum displays. The Tasmanian Herbarium, housed in a new building completed in 1987 at the University of Tasmania, is part of the Museum.

The West Coast Pioneers' Memorial Museum at Zeehan has operated as a branch of the Tasmanian Museum since 1965. It deals with the history of the West Coast of Tasmania, with an emphasis on mining, and is visited by about 120 000 people each year.

Collections

Art: The Gallery has a comprehensive collection of Australian paintings, drawings, prints and sculpture from the early nineteenth century to the present day. The collection places particular emphasis on art of the colonial period in Tasmania, with large groups of paintings by Glover, Duterrau, Bull, Gould, Wainewright, de Wesselow, T.E. Chapman, Louisa Anne Meredith, Skinner Prout and others. There are also some important European works of the nineteenth and early twentieth centuries by Beechey, Bouguereau, Poynter, Rodin, Epstein, Sickert and Gilman. The collection of eighteenth and nineteenth century English watercolours is one of the finest in Australia. The Gallery also collects nineteenth and twentieth century prints and photographs.

The applied arts collection includes nineteenth century European and Australian costumes, silver, china and glass and the Easterbrook Collection of over 6 000 Australian ceramics. Asian material includes a collection of jade carvings and Japanese netsuke.

History: The presentation of colonial history is highlighted by articles such as Andrew Bent's press of c. 1825 and Lady Franklin's sedan chair (c. 1840), and by a comprehensive maritime (including whaling) collection. A photograph collection covers the period from the mid-1850s to the present day. Coins and medals, including a collection of Greek, Roman and early British coins, and early time-pieces are other notable historical collections.

Anthropology: Tasmanian Aboriginal culture is represented by tools and artifacts, and rock carvings from Mount Cameron West in north-western Tasmania. There is a Melanesian collection assembled earlier this century, and representative Australian material.

Zoology: Present displays of vertebrate animals feature Tasmania's land mammals and birds, together with reptiles and marine life. Tasmanian invertebrates on show include insects, spiders, crabs, mollusc shells and sea stars. An extensive reference collection of Tasmanian animals is maintained for scientific study. The Museum safeguards many type specimens (original examples on which descriptions of new species have been based).

Geology: Rocks, minerals and fossils of predominantly Tasmanian origin are on display. Notable exhibits include the skeletons of *Wynyardia*, the 20-million-year-old marsupial from Wynyard, and *Zygomaturus*, a giant marsupial, and the world famous mineral crocoite from Tasmania's west coast. The reference collection houses rocks and minerals, including the Petterd Mineral Collection, and fossils, which include many type specimens, mostly from Tasmania.

Botany: The Herbarium is housed on the campus of the University of Tasmania. It includes specimens collected early in Tasmania's history by R.C. Gunn, many of which are type specimens. Other early collectors represented include Archer, Meredith, Milligan, Stuart and Spicer. The Herbarium's current holdings number about 120 000 specimens of Tasmanian plants.

9.7.2 Queen Victoria Museum and Art Gallery

The Queen Victoria Museum and Art Gallery was established by the Tasmanian Government in 1891. Since 1895 it has been vested in the Launceston Corporation and has received an annual State Government grant. Serving primarily the northern half of Tasmania, its public galleries contain collections and exhibits of special relevance to the natural and cultural environment of Tasmania. Education, research and information services are provided.

The Museum operates the only Planetarium in Tasmania. Regular sessions are conducted for both the general public and for school groups. The Museum also has its own air-conditioned theatrette seating 166 people and a reference library of scientific and historical books and journals. The colonial painting collection is one of the finest in Australia and there are also extensive collections of Tasmanian animals, plants, artifacts, geological specimens, historical material, craft, decorative art and fine art.

The education office of the Queen Victoria Museum and Art Gallery provides a service to schools throughout northern Tasmania, lending a wide range of items for teaching aids and assisting with teaching programs in the public galleries. It also operates a small travelling bus which visits schools in the north and north-east of the State.

The Museum's main annexe is Macquarie House in Launceston's Civic Square. The displays within Macquarie House centre on Launceston's history, through the theme of its architecture. As well, the two smaller annexes at Launceston's Cataract Gorge, the Band Rotunda and the Gorge Interpretation Centre, have displays emphasising the historic, recreational and cultural importance of the Gorge to the Launceston community.

The Museum has three temporary exhibition galleries which have a constantly changing display program. In 1987 there were 31 temporary exhibitions, 23 of which were produced within the Museum. As a part of the Bicentennial celebrations, the exhibitions program has been increased. Among these are: Tasmanian Vision, a major nineteenth century exhibition of art works from within Australia and overseas, documenting Tasmania's rich visual history.

In conjunction with International Museum's Day, a Children's Art Exhibition was held with an emphasis on the value in primary children's art.

Two new branches of the Museum opened early in 1987, as part of the Bicentennial celebrations. The Maritime Museum is in the architecturally unique Johnstone and Wilmot building built in 1842. This Museum features displays on Launceston's maritime heritage, illustrated with numerous photos, paintings and shipping relics including scrimshaw and models.

The Interactive Technology Museum also opened with participatory displays, demonstrating in an exciting and entertaining manner some of the fundamental principles of science and technology.

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Chapter 10

HEALTH

The desire to attain good health is universal. Throughout history man has always endeavoured to protect his health, at first by devising techniques and selecting special individuals to ward off 'evil spirits'. Observation and experience gradually identified ways for keeping well. Laws were developed to govern health and, as large communities developed, methods of sanitation were devised. But it was not until the 1800s with the discovery that germs caused disease, that significant advances in man's understanding of, and ability to successfully treat, illness were made.

Yet, for all the knowledge and resources now directed towards attaining good health, death, disease, injury and illness are still part of everyday life, present everywhere and touching all of us.

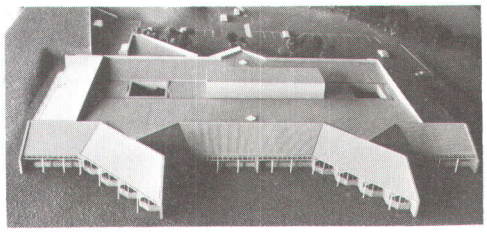
10.1 MORTALITY

In 1986 the deaths of 3 454 resident Tasmanians were recorded. This was 239 fewer than the 1985 figure of 3 693, and represents a crude death rate of 7.73 per 1 000 mean population, the lowest rate since 1983 when it was 7.67. It has been lower on only one other occasion (1979 with a rate of 7.61 deaths per 1 000 mean population) since records began in 1860. Of the deaths, 1 825 were males and 1 629 were females, a ratio of 112 males for every 100 female deaths.

10.1 DEATHS IN TASMANIA, 1984

Age group (years)	*Males*	*Females*	*Persons*
Under 1	45	34	79
1–4	12	4	16
5–14	19	2	21
15–24	51	17	68
25–44	87	57	144
45–54	120	57	177
55–64	296	155	451
65–74	501	373	874
75 and over	694	930	1 624
Total	1825	1 629	3 454

Up until age 75 male deaths outnumbered female deaths. The reversal in the 75 and over age group occurs because of the higher number of females of that age in the population. In all groups the age-specific death rate of males is higher than that of females and for most age groups the male rate is almost twice the female rate. Only for the 1–4 age group does the death rate for females approximate the male rate. The death rate among infants, children aged less than one year, is considerably higher for males than for females.



A scale model of a new 50-bed private hospital being built in Burnie. Photo: *Examiner*

10.2 AGE-SPECIFIC DEATH RATES, TASMANIA, 1986

Age group (years)	*Males*	*Females*
Under 1	14.86	10.64
1–4	0.82	0.64
5–14	0.52	0.06
15–24	1.36	0.46
25–44	1.31	0.87
45–54	5.54	2.71
55–64	14.53	7.57
65–74	36.28	22.68
75 and over	101.51	81.29
All ages	8.23	7.25

10.1.1 Causes of Death

Four causes of death accounted for just over two thirds of all deaths registered in 1986. These were Ischaemic heart disease (27.0 per cent), cancers (23.5 per cent), strokes (10.1 per cent), and accidents, poisonings and violence (6.9 per cent).

10.3 PRINCIPAL CAUSES OF DEATH, TASMANIA, 1986

Cause	Proportion of all deaths	Number	
		Males	Females
Ischaemic heart disease	27.0	523	411
Malignant neoplasm	23.5	444	368
Cerebrovascular diseases	10.1	125	225
Accidents, suicides and violence	6.9	174	65

Most deaths among people aged from 1 to 44 years result from motor vehicle traffic accidents, and suicide and self-inflicted injuries. These causes account for nearly half (44 per cent) of all male deaths, and nearly one third (31 percent) of all female deaths in that age group.

Around the ages 35 to 40 years a change in the pattern of deaths takes place. In the 25 to 44 year age group diseases of the circulatory system account for the deaths of 18 per cent of males. This figure jumps to 44 per cent for males aged between 45 and 64 years.

Cancer also becomes significant. Two broad groups, malignant neoplasms of the digestive organs and peritoneum (which includes 'stomach' and 'bowel' cancer), and lung cancer account for most cancer deaths. 11 per cent of male deaths between 1 and 44 years are due to various forms of cancer. This figure triples to 33 per cent for males between 45 and 64.'

While the predominant causes of death among women are similar, the pattern differs in that cancers are initially more prevalent than diseases associated with the circulatory system. Cancer in women below 25 years was virtually non-existent in 1986, but accounted for 40 per cent of deaths of those aged between 25 and 44 years. Half of these were cases of breast cancer.

Diseases of the circulatory system are responsible for just over a third (34 per cent) of the deaths of women in the 25 to 44 year age group. The proportion rises to 50 per cent in the 65 to 74 year age group, then to 64 per cent for those 75 years and over. Diseases of the respiratory system account for fewer female than male deaths.

10.4 MAIN CAUSES OF DEATH AT SELECTED AGES, TASMANIA, 1986

Cause	Male	Female
Under 1 year age group		
Conditions originating in the perinatal period	19	9
Congenital Anomalies	12	13
Sudden infant death syndrome	13	11
Other causes	1	1
All causes	45	34
1 to 14 year age group		
Motor vehicle traffic accidents	9	4
Other accidents, poisonings and violence	6	1
Other causes	16	1
All causes	31	6
15 to 24 year age group		
Motor vehicle traffic accidents	17	7
Suicide and self-inflicted injuries	15	2
Other accidents and violence	10	4
Other causes	9	4
All causes	51	17
25 to 44 year age group		
Accidents, poisonings and violence	5	1
Diseases of the circulatory system including heart disease	16	6
Neoplasm	13	23
Other causes	16	6
All causes	50	36
45 to 64 year age group		
Diseases of the circulatory system including heart disease	181	73
Neoplasms	137	96
Accidents, poisonings and violence	37	9
Diseases of the respiratory system	16	10
Other causes	45	24
All causes	416	212
65 to 74 year age group		
Diseases of the circulatory system including heart disease	249	185
Neoplasms	152	111
Diseases of the respiratory system	49	25
Accidents, poisonings and violence	14	8
Other causes	37	44
All causes	501	373
75 years and over age group		
Diseases of the circulatory system including heart disease	369	594
Neoplasms	143	144
Diseases of the respiratory system	75	49
Diseases of the digestive system	17	43
Other causes	90	100
All causes	694	930

Suicides

by Alan Deacon

From 1980 to 1987, 502 Tasmanians committed suicide, 399 males and 103 females.

During the preceding twenty years, 1960–1979 the Australian suicide rates were 17 per 100 000 of male population and 7 per 100 000 for females. The Tasmanian rates although slightly higher approximated these figures.

During the 1980s the suicide rate among Tasmanian males increased dramatically to an average of 23 per 100 000 for the period 1980–1987 reaching high points of 26 per 100 000 in 1982, 1986 and 1987. This compared with a smaller increase (16 to 19 per 100 000) among all Australian males over the same period and a constant rate among females.

A disturbing feature of the climb in the suicide rate is the increase in the number of young males taking their own lives.

Between 1965 and 1985 the suicide rate for youths in the 15–19 year age group has more than doubled while the female rate has remained comparatively steady. This is not a statistic peculiar to Tasmania or Australia but is generally considered to be world wide. The United States has shown a consistent increase since 1960.

In Tasmania the percentage of suicides in the 0–24 age group during the years 1985, 1986 and 1987 was 25, 28 and 24 respectively.

These figures are possibly understated. Death by suicide is usually determined by a coronial inquiry. In the past there has been a tendency for coroners to sometimes ascribe the terms 'death by misadventure', 'accidental death', 'childish act' or 'undetermined' to the very young thus excluding them from suicide figures.

Some observers have suggested that although under-reporting of suicides may have once been the case it is now less likely to occur and that the increase in suicide figures in the young may be partly related to a shift in coronial verdicts from 'accidental' to deliberate.

In any event, the dramatic increase in suicides of young males as measured by the statistics, is much too significant to be attributed to a shift in coding procedures.

Also excluded from suicide figures are those cases which undoubtedly occur but cannot be verified. In particular, motor vehicle deaths raise many queries as to the motivation of some of the drivers.

The methods of committing suicide have varied little over time, with males using the more violent means of firearms in over 50 per cent of cases, hanging in 15 per cent and the balance distributed mainly between drug overdose, car exhaust, and drowning. For females however there appears to have been a movement away from suicide by drug overdose towards a more even distribution between the various methods.

From 1961 to 1981 the percentage of Australian women who committed suicide by taking an overdose of drugs was 58.7 of all suicides. In Tasmania the percentage of females dying from drug overdoses during the period 1978–86 was 41. This proportion fell to 36 per cent for the period 1984–87 with 16 per cent suiciding by hanging, 18 per cent by firearms and 14 per cent by drowning.

The methods used have considerable bearing on the ratio of male to female suicides — more than 3:1 in the last ten years — since attempts at suicide through firearms are far more likely to be successful than drug overdosing.

10.5 SUICIDE RATES, TASMANIA (per 100 000)

Year	Male				Female			
	Age Group				Age Group			
	15–29	30–39	40–49	All Ages	15–29	30–39	40–49	All Ages
1980	21	17	37	17	2	–	19	5
1981	29	23	46	26	4	–	9	5
1982	40	13	31	21	4	7	5	6
1983	27	50	9	25	4	6	23	7
1984	18	37	13	17	9	9	–	6
1985	43	33	21	25	5	18	4	7
1986	39	17	36	26	4	15	16	5
1987	34	29	45	26	2	3	16	6

In the three years 1979 to 1981, 666 females were admitted to public hospitals in Tasmania for attempted suicide of whom 635 were for overdose of drugs. The male figures for the same period were 359 admissions, 301 of which were drug overdose. In most instances recovery is complete after an average length of stay in hospital of four to five days. Assuming that similar proportions of unsuccessful attempts occur amongst those admitted to private hospitals or are treated satisfactorily in casualty stations or privately, then the prevalence of suicidal intent shifts dramatically from the 3:1 male to female ratio to an almost 2:1 female to male proportion. This approximates the public hospital admissions for mental disorders over the same period if the figures (or the male dominated alcohol dependence syndrome (789 males to 147 females) are excluded. These are 3 337 females to 2 354 males.

There appears to be a growing conviction that psychiatric illness is predominant amongst the reasons for attempted suicides. In most instances this would need to be 'triggered' by any one of a host of factors including depression caused by hostile family environment, physical health, economic problems and social relationships. This latter 'trigger' has been related to many of the drug overdose attempts which, it is postulated, may not be so much suicidal as a means of attracting attention, proving a point, punishing someone else or emotional blackmail.

Other reasons for taking one's own life include the realisation of a terminal illness and not wishing to either suffer oneself or be a burden to others; to make the ultimate apology for failure; to demonstrate to an audience in an endeavour to influence opinion as in public self immolation, hunger strikes and the like; so called 'love pacts'; 'copycat' suicides which seem in many instances more of a preoccupation with the actual act and its notoriety than the result of the act.

Considerable discussion, claim, and counter-claim, has revolved around the possibility that restricting the means would lower the suicide rate. However, regardless of any controls or restrictions placed on the means for self destruction it would seem that at least some three to four hundred Tasmanians will attempt to take their own lives each year.

10.6 SUICIDES, TASMANIA 1978–1987

Year	*Overdose*		*Car exhaust*		*Hanging or suffocating*		*Drowning*		*Firearms*		*Other*		*Total*		
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*Persons*
1978	7	8	4	–	1	–	–	5	21	–	3	–	36	13	49
1979	7	8	1	–	8	–	1	4	18	4	3	–	38	16	54
1980	3	1	4	–	2	4	2	1	25	3	1	1	37	10	47
1981	4	4	12	2	7	1	3	1	23	2	4	–	53	10	63
1982	3	7	2	2	11	3	2	2	21	1	4	–	43	15	58
1983	2	6	10	1	11	5	3	2	25	1	3	–	54	15	69
1984	6	4	5	–	5	3	2	1	18	4	2	1	38	13	51
1985	4	9	8	1	7	1	2	3	31	1	3	–	55	15	70
1986	4	2	9	1	7	3	2	2	32	1	6	3	60	12	72
* 1987	4	3	11	1	7	1	5	1	23	3	3	–	52	9	62
Total	44	52	66	8	66	21	22	22	237	20	30	5	465	128	593

* 1987 figures are preliminary only.

10.2 CARING FOR THE SICK

The treatment of illness is the major function of the health care system. In Australia the most visible, and the most expensive, part of the system is the hospital. But although some form of institution for the care of the sick has probably always existed, hospitals in their current form are a relatively modern concept.

Originally, hospitals were established for sick or weary travellers and for the poor, the blind and the crippled. Usually operated by religious orders, hospitals served as institutions to care for persons too poor or too sick to be treated at home. Even up to the 1700s they were still operated as charity institutions, with the well-to-do being treated in their own homes.

It wasn't until the 1800s, when hospitals underwent considerable improvement in cleanliness, that the trend of caring for patients in hospitals instead of in their own homes began.

Perhaps ironically the escalating costs of treating patients in modern hospitals has forced a new move back to home based nursing care. Increasingly, efforts are being made to significantly reduce the length of time patients are kept in hospitals. More and more admissions are being delayed and patients are being discharged early to be cared for by teams of Home Nurses and people providing 'home help' or 'handyman' services.

10.2.1 Hospitals

According to a survey conducted in 1983 an estimated 12 per cent of Tasmanians had had one or more episodes in a hospital during the previous twelve months. For most, the stay in hospital was of a relatively short duration; for 70 per cent, one week or less. Less than four per cent of the population was hospitalised for more than a month, and only 20 per cent underwent more than one period in hospital during the 12 month period.

In most age groups, more females than males had been hospitalised; only among infants and children up to 14 years of age were females outnumbered by males.

Tasmania has 28 hospitals of which six are operated privately. In Hobart, the Medical Benefits Fund owns and operates St John's Hospital and Australian Hospital Care Pty Ltd owns St Helen's Hospital. Both provide medical and surgical facilities. The Roman Catholic Church owns Calvary Hospital in Hobart and St Vincent's in Launceston. St Luke's Health Insurance own and operate St Luke's Hospital in Launceston. The sixth is a psychiatric hospital, the Hobart Clinic.

At the end of June 1986, a total of 2520 approved beds were being provided in Tasmania; 5.64 beds for every 1000 people.

10.7 APPROVED HOSPITAL BEDS, TASMANIA, April 1986

Beds in —	
Public hospitals	2004
Private hospitals —	
Category 1	336
Category 2	180
Total private hospital beds	516
Total hospital beds	2520

The State provides four general hospitals, 14 district hospitals, 11 hospital annexes and district nursing centres with bed accommodation, six centres without accommodation, one mental hospital, two maternity hospitals, and three nursing homes for the aged. A total of 2004 public hospital beds are available.

10.8 PUBLIC HOSPITAL BEDS, TASMANIA, 1986

General Hospitals —	
Royal Hobart	497
Launceston General	98
Mersey General	187
North-Western General	216
Maternity Hospitals —	
Queen Alexandra	68
Queen Victoria	117
District Hospitals —	
Huon	39
Beaconsfield	26
Campbell Town	18
King Island	24
New Norfolk	42
North-Eastern Soldiers' Memorial	49
Ouse	10
Rosebery	15
Smithton	16
St Helens	9
St Marys	19
Toosey	33
Ulverstone	48
West Coast	43
District Nursing Centres	71
Miscellaneous	43
Total	1988

The four general hospitals, the Royal Hobart, Launceston General, Mersey General (at Latrobe and Devonport) and the North-Western General (with divisions at Burnie and Wynyard) provide all facilities. Specialist treatment is available in obstetrics, gynaecology, orthopaedics, uro-genital surgery, plastic and reconstructional surgery,

neuro-surgery and neurology, radiology, pathology, radiotherapy, psychiatry and ophthalmology. Skin diseases and venereal diseases are also treated and clinics operate in thoracic medicine and surgery. An emergency obstetric service, with specialists based in Hobart and Launceston, provides a free service to the smaller public hospitals, district nursing hospitals and district medical officers outside Hobart and Launceston.

During 1985–86 a total of 62 916 in-patients were treated in the State's hospitals.

10.9 IN-PATIENTS TREATED, TASMANIAN PUBLIC HOSPITALS, 1985–86

Hospital	*General*	*Maternity*
General hospitals	43 429	5 317
District hospitals	7 281	707
Maternity hospitals	2 236	2 068
District nursing centres	1 118	–
Other (*a*)	760	–
Total	54 824	8 092

(*a*) Mothercraft Home and Peacock Convalescent Home

The W.P. Holman Clinics

One of the emerging medical specialities in the 1920s was the use of radiation to treat cancerous growths, and Tasmania was well to the fore in meeting this challenge. This was largely due to the pioneering work of Dr William Prout Holman at the Launceston General Hospital and later at the Victorian Cancer Institute where he continued to take an active interest in services in Tasmania.

Radiotherapy involves the use of rays very similar to those used in taking x-ray pictures. However, the treatment rays used are much more powerful and penetrating and need the equivalent of millions of volts of electricity, instead of only thousands of volts, as is the case in diagnostic rays. In addition, therapy rays are kept flowing for many seconds or minutes instead of just a fraction of a second needed to produce an x-ray film. The radiation used for the treatment of cancer can be produced by electrical means or by using the rays emanating from a radioactive substance. The main radiation-generating machine, a linear accelerator, produces a penetrating radiation which can reach tumours anywhere in the body. Other machines are available which generate less penetrating radiation when this is required and the strengthened penetration of the rays can be varied, depending on the nature of the cancer and its position in the body.

A further treatment possibility is the direct use of a radioactive material, either implanted under the skin or placed in a body cavity. Generally, because of the nature of the treatment, the patients are hospitalised under the supervision of the Radiotherapist-In-Charge, although there are cases, because of the low energy strength of the radioactive source, where the patient is allowed to return home. Radiotherapy can be used alone or in combination with surgery and/or chemotherapy.

The Tasmanian Government and the Department of Health Services are indebted to the Victorian Cancer Institute Board for operating clinics on Tasmania's behalf since 1952 when it was agreed that the State was too small to operate its own cancer service. At that stage both Hobart and Launceston clinics operated superficial and deep x-ray therapy units but the State did not possess a higher energy unit. As a result, it was necessary to transfer to Melbourne patients who required higher energy treatment. To a certain extent the inconvenience of this situation was remedied as new equipment was purchased and specialist staff became available. In 1961 a full-time radiotherapist was appointed, thus making it possible for specialist treatment to take place in both Hobart and Launceston.

In 1964 cancer clinics were opened on the north-west coast at Burnie, Ulverstone and Devonport. It was not, however, until 1969 that a six megavolt linear accelerator was installed in the new cancer clinic in Hobart. The acquisition of this equipment eliminated the necessity for patients to travel to Melbourne for treatment. Tasmania was now well served with a cobalt-60 unit in Launceston and a linear accelerator in Hobart. In 1975 the cobalt machine in Launceston was replaced by a linear accelerator.

A new stage in the delivery of services was reached when, in July 1986, after a period of negotiation, responsibility was transferred to Tasmanian administration. The clinics, one in Hobart and one in Launceston, were renamed the W.P. Holman Clinics in appropriate recognition of his work in this field. Currently these clinics comprise the Division of Radiation Oncology within the Department of Health Services.

10.2.2 Community Health

A major initiative in health services in Tasmania during 1987–88 was the creation of a new Division of Community Health. The creation of this Division was seen as a means to address the challenges of "Health for All by 2000".

In the Tasmanian context these challenges are:

- to provide a mechanism to improve health status in Tasmania;
- to provide alternatives to expensive institutional care;
- to harness community resources; and
- to reduce inequities in health services.

The current growth of community health services in Tasmania began in 1975. There are now more than 600 full-time equivalent staff serving about 8 000 clients at any one time. Funds totalling nearly $14 million have been attracted from the Community Health Program, the Home and Community Care Program, Medicare and a variety of smaller sources. Services currently include Home Nursing, Home Help, Handyman, Palliative Care, Geriatric Assessment, Social Work, Physiotherapy, Occupational Therapy and Meals on Wheels as well as Health Education and Promotion.

The diversity of funding sources has been matched by diversity of management structures. Services have been administered via at least 50 different projects, including all the State's public hospitals.

The more unified Divisional structure will make it possible to achieve economies of scale and a maximisation of existing resources. It will also make it much easier to co-operate with voluntary agencies such as service clubs, community organisations and national bodies.

1987–88 has been occupied with the administrative changes required to bring about the transfer of staff and resources to the Division. 1988–89 will be the year where the major challenges will be set out publicly and tackled enthusiastically.

In terms of health status, the Better Health Commission has already identified the major areas for concern in Australia as cardiovascular disease, nutrition and accidents. Tasmania currently has the worst record of all Australian States for heart disease and nutritional problems. Community programs will be introduced to encourage local groups to set up exercise and nutritional programs to address these very major problems.

Community Health Services already maintain at least 1 000 individuals at home who would otherwise need access to institutional beds. There is no doubt that the pressure for institutional beds will continue to increase with the ageing of Tasmanian society. The Division has already made a huge impact with geriatric assessment and will continue its efforts towards preventing inappropriate or premature admission.

There is now little doubt of the need to improve the health of the community. The majority of service clubs, community organisations and health related bodies are agreed that much needs to be done. There is, however, a tendency to do these things in isolation and in disparate ways. A major brief for the Division is to bring together the various projects and developments in the Tasmanian community under a co-ordinated and directed strategy.

Inequity of access to health care is a continuing problem. It is affected by financial, social, geographic and philosophical factors. The Division does not intend to revolutionise society but will be attempting to address some of the major inequities in health status between various groups in the population and to improve the access to information about health across the State.

In geographical terms, Tasmania's uniqueness lies in its defined boundaries within which lives a relatively representative Australian community. Tasmania has always been considered an ideal crucible in which to carry out programs designed to improve health, and past experience such as the Hydatids Campaign and the School Dental achievements bear witness to that reality. The Division of Community Health intends to build upon the experience gained by these previous programs to maximise their health effects.

Communicable Diseases Unit

To co-ordinate the monitoring of all cases of notifiable infectious diseases occurring in Tasmania, the Department of Health Services has established a communicable diseases unit. While the major emphasis to date has related to the acquired immune deficiency syndrome (AIDS), which was declared an infectious disease in 1983, the unit is also involved in monitoring sexually transmitted diseases by way of regular clinics held at the Royal Hobart Hospital.

The communicable disease unit has the prime responsibility for providing counselling and education functions to individuals, high risk and community interest groups, as well as professional and employee bodies. In addition an AIDS hot line was introduced in 1985. This facility has proved to be a valuable information source and a point of first contact for those callers needing the services of the communicable disease unit.

10.3 HEALTH MAINTENANCE

Increasingly it is being argued that preventing illness is not only the best, but the cheapest form of health care provision. This move is evident in an increasing emphasis on health education for adults in particular. But it is also part of the rationale for such measures as fluoridating public water supplies and introducing a range of screening and monitoring services for children especially. Examples are the Child Health Clinics, mobile dental units, school nurses, dental therapists and medical officers.

10.3.1 Child Health

The Child Health Service commenced in 1917 under the auspices of two voluntary organisations, the Hobart and the Launceston Child Welfare Associations. Since then, the Tasmanian Government, through the Department of Health Services, has increasingly assumed responsibility and now provides the staff and the majority of the buildings. However, the voluntary organisation which has become the Child Health Association of Tasmania, still owns a number of the Child Health Centres and the Association's committees continue to support and to meet the running costs of the majority of the Child Health Centres.

In 1987 there were 117 Child Health Centres and 1 travelling unit. Triple certificated child health nurses attached to these Centres advise mothers on all aspects of caring for babies and young children. Mothers are advised on infant feeding, child development and other health and social problems. The registered nurses screen children's growth and development to detect, as early as possible, a deviation from the normal pattern of development and refer these to the family doctor or the appropriate agency for investigation and/or early treatment. Child health nurses visit new born babies at home and continue the supervision and support either at home or, more commonly, in the Child Health Centre where individual records are maintained. Nurses also arrange for examinations to be carried out by family doctors under the Pre-School Medical Scheme. Departmental medical officers carry out examinations in Child Health Centres.

The Mothercraft Home in South Hobart provides care for babies and toddlers needing assessment and management of specific problems and offers support and counselling advice to the mothers. Assessment centres in Hobart, Launceston and Burnie provide a multi-disciplinary team, in liaison with the Education Department, to assess and attend to the needs of children up to school-leaving age.

10.3.2 Dental Health

Free dental treatment is available each year for every child up to the school leaving age from the School Dental Health Service. In 1966 Tasmania became the first Australian State to develop a School of Dental Therapy.

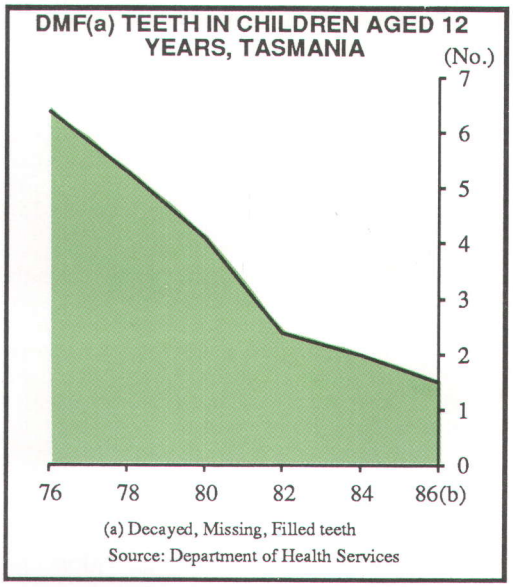
The school was established to enable dental therapists to provide a field service, and mobile clinics were used to bring services to schools. On 30 June 1986 the field service had 65 full-time equivalent dental therapists and 13 District Dental Officers who provided referral care to 24.7 per cent of all patients examined by the field service.

10.10 SCHOOL DENTAL SERVICE

School	*School population*	*No. Treated*	*Utilisation (%)*
Primary	53 188	45 131	84.8
Secondary	36 606	18 900	51.6

Tasmania, compared with other States, has a low level of natural fluoride and other trace elements in soil and rock because of the influence of glaciation during the Ice Age. The introduction of water fluoridation has helped compensate for this lack and contributed to the decrease in the incidence of dental caries.

Specialised techniques such as the use of sealants for at-risk pits and fissures in permanent molars, and the selective use of silver fluoride have helped reduce tooth loss. Education, espe-



(a) Decayed, Missing, Filled teeth

Source: Department of Health Services

cially in the early years, on the prevention of dental disease and the importance of oral hygiene is one of the simplest and most effective prevention measures. This emphasis is fundamental to the work of the School Dental Health Service and should ensure the future dental health for young Tasmanians.

The international standard for oral health set as a goal for the year 2000 by the World Health Organisation, is that 12-year-old children should have an average of only three permanent teeth affected by decay. A measure of the notable success achieved by the Tasmanian School Dental Health Service is that this goal was reached in 1982. Tasmania once had the nation's highest rate of incidence of dental caries and, indeed, a number of studies have shown that the incidence of dental caries worldwide increases in higher latitudes. Since 1975 the total permanent caries found in schoolchildren has steadily declined.

10.3.3 School Health Service

The main role of the School Health Service is that of screening, counselling and health education. It is noteworthy that, in Tasmania, the School Health staff work in close liaison with nurses in the Child Health clinics and the documents and screening results of the child's visits to the clinics are passed on, thereby giving the Tasmanian service continuity of records.

The School Health Service is available to all school children both in government and non-government schools. Very few refuse to utilise the service and over 99 per cent of school children participated in 1986.

Each child receives an examination by a school medical officer at five years of age or during the first year of attendance. The school nurse is responsible for the students in a group of schools and plays a pivotal role in the provision of health care in schools. Routinely, all children have vision screening, hearing tests and checks of height, weight, thyroid, posture and skin. Where necessary checks are made for infestation and hygiene. A full health assessment is given by the nurse to those 11-year-old students not needing reviews and the final school medical examination takes place in grade 9 when there is increased emphasis on health education. Problems that may be found in the assessment of the health and development of the child are referred for treatment. Co-operation between the school health staff, teachers and parents is essential in the best interests of the children. Growth and change are characteristics of childhood and the monitoring system of the school health services can identify problems and disabilities as they occur. Therefore, counselling and advisory services are provided on a whole range of health related matters as the first stage in preventative health care.

10.11 SCHOOL MEDICAL EXAMINATIONS, TASMANIA, 1985

Total number examined	19 286
Number with notification of defect	3 120
Defects notified	*Number*
Eye conditions	667
Orthopaedic conditions	476
Ear conditions	469
Nutritional disorders	390
Skin and hair	332
Behaviour	162
Speech	101
Other	523

Source: Department of Health Services.

10.3.4 Health Education

The National Campaign Against Drug Abuse is a cost-shared project with the Commonwealth in community-based health education. Cigarette smoking is the largest single preventable cause of illness and death in Tasmania, while addiction to such drugs as heroin is still small compared with other States. Special efforts have therefore been directed to anti-smoking strategies.

Smoking is a personal life-style choice but surveys have shown that young people, particularly girls, are continuing to take up smoking in early adolescence. "Life in the Big Smoke" is an anti-smoking campaign targeted at this group and run jointly by the Department of Health Services and the Education Department. Humour is used to drive home the message — 'Only dags need fags' and 'Only a galah would suck tar!' Television cartoons shown at peak viewing time for the early teen years and late primary age groups, have been designed to reinforce the slogans. Distribution of 6 000 posters and 40 000 stickers to schools, youth groups and individuals have helped to make these anti-smoking messages into household words in the same way as the commercials of the advertising industry. The campaign has had a very positive influence on its target group according to informal assessment. Judging from the large correspondence received from young people and their parents it also has had the side-effect of putting pressure on parents, through their children, to give up smoking. 'QUIT' programs are run by Community Health staff to support and encourage those smokers, young or old, who wish to be non-smokers.

The 'Learn 'n Live' program is a community awareness and workshop project incorporating a mobile resource unit to bring health education to specific groups and country areas. The program

serves many purposes but the main one is to open communication channels so that people can gain an understanding of how their personal choices in life-style can effect their health in the long term, whether it be the use of cigarettes, alcohol, prohibited drugs or other risk-related behaviour such as excessive salt or fat consumption. The Healthfit unit caravan has proved a popular source of information. Its size, colour and logo have made it highly visible at country shows and during its travels in country areas. The groups contacted have been diverse and have included gatherings at neighbourhood houses, in training centres and at special interest seminars and at institutions such as boys' homes.

Research and informal feedback from the communities visited by Health Education teams have indicated that alcohol abuse is the drug abuse area causing major widespread and serious problems. An alcohol program for the year 1987–88, aimed at teenage alcohol abuse and based upon "Stay in Control", is being prepared. This will be supplemented by an intensive campaign in Tasmania.

Costs of Smoking

According to a study released in 1987 by the Health Department of Western Australia smoking costs $2.5 billion each year. The cost to Tasmania was estimated at $82 million.

The cost estimates, based on estimates for 1984, take into account the direct expense of treating smokers, the loss of income and productivity resulting from smoking caused premature deaths and disability.

10.4 HEALTH RESEARCH

The Menzies Centre for Population Health Research

Plans for a major new medical research centre in Tasmania were approved at an international workshop in Feburary 1987. Participants at the workshop organised by the Menzies Foundation included Sir Richard Doll, Emeritus Professor of Medicine at Oxford, and Siegfried Böthig, Chief of the Cardiovascular Disease Section of the World Health Organisation, as well as many noted Australian medical scientists and administrators. The Centre, to be called the Menzies Centre for Population Health Research, is to be funded by contributions from the Menzies Foundation, the Tasmanian Government and the University of Tasmania. It has also received contributions from the AMP and the St John's Association. It was officially opened in January 1988 and based at the University of Tasmania.

The investigators will look at diseases which are important in Tasmania and also of interest elsewhere in the western world. The research will be seen as relevant by participating Tasmanians, and at the same time it will attract interest and funds from national and international sources.

The Centre will focus on two areas, finding the causes of disease, and finding ways of applying this knowledge to prevent disease in the community. This latter category of research, which might be termed "applied intervention", will be the major emphasis of the Centre and will give it a unique role within the Australian medical research context.

10.12 ESTIMATED COSTS OF SMOKING, AUSTRALIA, 1984 ($million)

State/Territory	*Direct health care costs*	*Adult indirect mortality costs*	*Indirect morbidity costs*	*Total costs*	*Perinatal indirect mortality costs*	*Total costs including perinatal indirect mortality costs*
New South Wales	301	430	183	914	27	941
Victoria	238	311	137	687	21	708
Queensland	133	186	80	399	12	411
Western Australia	81	89	43	213	8	221
South Australia	79	104	46	229	7	236
Tasmania	24	40	16	79	3	82
Australian Capital Territory	11	11	6	28	1	29
Northern Territory	9	13	6	27	1	28
Australia	877	1 185	517	2579	81	2660

Source: Smoking — Attributable Economic Costs in the Australian States and Territories 1984, Epidemiology Branch, Health Department of Western Australia, Perth, 1987.

While the full range of topics within this framework is yet to be decided, the early work of the Centre will include research into causes of disease and applied interventions.

Studies of causes of disease

Sudden Infant Death Syndrome (SIDS). The rate of death from this cause is much higher in Tasmania than the mainland.

10.13 SIDS RATE PER 1 000 LIVE BIRTHS, AUSTRALIA 1980–84

Location	*SIDS mortality rate*	*Ratio to Tasmanian rate*
Tasmania	3.66	1.00
NSW	1.88	0.51
Victoria	1.97	0.54
Queensland	1.63	0.45
SA	2.02	0.55
WA	2.01	0.55
Rest of Australia	1.89	0.52

This high rate makes it a priority for research in Tasmania. Therefore, one of the first projects within the Menzies Centre will be a large prospective study on SIDS. The approach will involve the research team measuring factors in the environment and in the baby prior to the occurrence of the condition. This should provide much more valid information than the retrospective approach (interviewing families after the death) which has been used in previous studies around the world on this topic. Up to 2 000 babies each year will be included in the study which will also gain important information on other aspects of infant health in the first year of life.

Primary cardiac arrest and lifestyle. The National Heart Foundation has provided $110 000 to conduct a three-year study comparing all cases of primary cardiac arrest (PCA) in adult males in Tasmania to a group of controls selected at random from the community. The data collection will focus on the relationship of sudden death to lifestyle factors such as dietary fatty acid intake, vigorous exercise and passive smoking.

The establishment of a diabetes register. The first diabetes register in Australia has been set up in Tasmania and this will be incorporated in the new Centre. The information from the register will be used to generate hypotheses about causes of diabetes as well as to monitor disease incidence and prevalence.

Applied interventions.

The applied interventions which have been suggested include work on osteoporosis in elderly females, cervical cancer, coronary heart disease and hypertension.

Oestrogens and osteoporosis. Oestrogens are commonly used by doctors in post-menopausal women for the prevention of osteoporosis. It is suggested that research be conducted to test the effectiveness of oestrogens in preventing osteoporosis and to estimate the likelihood of side-effects such as cancer of the uterus.

Cervical cancer. It appears that screening for cervical cancer through the examination of cervical smears is effective in reducing the incidence of this cancer. A study aimed at increasing the level of screening in certain areas, with follow-up to determine whether incidence has been reduced, is proposed.

Coronary heart disease. The death rate from coronary heart disease (CHD) is currently higher in Tasmania than the average in other Australian States. Tasmania has not experienced the large decline in CHD seen on the mainland since the late 1960s.

10.14 TRENDS IN ISCHAEMIC HEART DISEASE MORTALITY (per 100 000)

	Tasmania	*Australia*
Males aged 45–49 —		
1971–73	207	209
1981–83	178	129
Females aged 45–49 —		
1971–73	35	48
1981–83	37	33

This was associated with a higher mean blood cholesterol concentration in Hobart than in other capital cities (based on the National Heart Foundation Risk Prevalence Survey data 1980 and 1983) and a higher smoking prevalence in females. The Menzies Centre is negotiating with the World Health Organisation for inclusion of Tasmania in an international network of centres which have as their primary goal the lowering of CHD Incidence through community-wide efforts.

Coronary heart disease in individuals with high plasma cholesterol. Both diet and medication can be used to lower blood cholesterol in people who have high levels. However, many of the drugs on the market have had problems — either because they have been unpalatable or they have had side-effects. A newer type of drug which relies on preventing the synthesis of cholesterol in the liver has been developed. This looks promising but needs to be tested more fully in humans with high cholesterol. Some of this work could be conducted in Tasmania.

Salt and Hypertension. It is clear that societies which have a low salt intake also have a low

prevalence of high blood pressure. However, the level of reduction of salt in the diet which has to be achieved in western societies to lower blood pressure is not clear, nor is it clear which individuals are most likely to benefit. Dr Trevor Beard of the Community Health Department at the University of Tasmania is seeking funds to conduct a series of studies on this topic.

The choice of specific topics in the future will be influenced by the investigators recruited, and by the interests of, and resources made available by, the Faculty of Medicine and other sections of the University.

10.5 MENTAL HEALTH

Significant advances have been made in the field of clinical psychiatry and in the treatment of mental illness during the past three decades. The development of psychotropic drugs, new therapeutic techniques and improved methods of clinical practice have revolutionised the mental hospital from an institution for the incarceration of lunatics to a modern hospital geared to the care and rehabilitation of the sufferers of psychiatric disorders. In Tasmania a range of services for the mentally ill and the intellectually handicapped are provided by the Mental Health Services Commission, a statutory authority established in 1967.

10.5.1 Adult Psychiatric Services

Adult psychiatric services are provided from the Royal Derwent Hospital, psychiatric units within general hospitals and various community based clinics located throughout the State.

The Royal Derwent Hospital at New Norfolk in the south is the State's principal centre for treatment of patients suffering severe and chronic psychiatric illness. About 300 beds comprising eight wards, cater for medium to long-term management, acute close management and rehabilitation, with active and individualised programs replacing custodial care wherever possible. Residential accommodation is also supplied for long-term psychotic patients. A psychiatric unit, located at the Royal Hobart Hospital has 23 beds available for acute cases presented to casualty as well as from general referral sources. This unit also has a major teaching function at undergraduate and post-graduate levels. As well, three Community Centres providing general community access in addition to dealing entirely with many patients who need no hospital intervention, provide an alternative to hospital admission. From these Centres, a team approach comprising psychiatry, psychology, social work and nursing has been developed. Day Centres for elderly brain failure patients are located in South Hobart and Lindisfarne where specialist consultation, respite care and assessment are provided. Long-term care for the more chronically disabled people is also co-ordinated from Hobart.

The north of the State is serviced by the Lindsay Miller Clinic attached to the Launceston General Hospital, and the north-west by the Spencer Psychiatric Clinic and the Devon Clinic located at the North-Western and Mersey General Hospitals respectively. The Lindsay Miller Clinic provides a psychiatric service to the northern region for a population of 121 000. The Clinic has 16 in-patient beds and provides a service for acute and chronic patients on an in-patient, out-patient and day-patient basis. It also provides a liaison service to the hospital, and a community service.

The Spencer Psychiatric Clinic has 17 in-patient beds and out-patient facilities. The unit is also recognised as an Alcohol and Drug Dependency Treatment Centre and provides comprehensive medical treatment for all psychiatric disorders. At the Oldaker Street Clinic in Devonport clients are dealt with on an out-patient basis, with referral to the in-patient facility (Devon Clinic) when necessary. Psychiatric assessment, medical treatment, counselling and psychotherapy using a team approach are available.

10.15 ADULT PSYCHIATRIC PATIENTS, TASMANIA, 1986–87

Hospital/Clinic	*Admissions*	*Out-patients/ Day-patients*
Royal Derwent	306	44
Royal Hobart	370	231
Lindsay Miller Clinic	315	574
Spencer Clinic	333	508
Devon Clinic	324	99
Other	–	3 102
Total	1 648	4 558

10.5.2 Child and Adolescent Psychiatric Services

Services for young people are located in Hobart and Launceston. Operating from Clare Street, New Town, the southern service provides a multi-disciplinary approach to the management of a range of problems from temper tantrums in the pre-school child to delinquency in older children. There is a strong emphasis on a family-centred approach, and on consultation with other agencies who may also be involved with the

young person or his family. Staff in the south hold regular clinics in outlying and suburban areas such as Rokeby, Bridgewater, the Huon Valley and Kingborough.

In the north, the Oakrise Centre provides a similar style of service to that in the south although there are fewer staff. Consultations with other departments have included collaboration with the Education Department in a task force on early school leavers or 'drop outs'.

10.16 CHILD AND ADOLESCENT OUT-PATIENTS, TASMANIA, 1986–87

Region	*Out-patients*
North	953
South	425
Total	1 378

10.5.3 Intellectual Disability Services

In the south, services for adults are centred at the Willow Court Residential Training Centre located at New Norfolk. The Centre manages a residential population of some 310 clients whose disabilities range from moderate to severe. The gradual re-organisation of the Centre's traditional departmental structure toward a programmatic system of service delivery has enabled an increasing emphasis on habilitation and other training for a less dependent lifestyle.

A statewide non-institutional community service organised into northern and southern regions complements the Willow Court Centre.

The northern region, which includes the north-west, is administered from the Rocherlea Training Centre in Launceston. It provides a range of services including day services for adults, community support programs, long-term residential accommodation, respite care, clinical consultancy and community education services.

The southern regional office, which is at present based in the grounds of the John Edis Hospital in Hobart, provides a smaller range of services than those that are available in the north. These include community support programs, respite care, clinical consultancy and community education services.

10.17 INTELLECTUAL DISABILITY SERVICES, TASMANIA, 1986–87

Facility	*Admissions*	*Individuals admitted*
Willow Court Centre	11	10
Respite facility (south)	486	82
Respite facility (north)	321	85
Total	818	177
Region	*Individual out-clients*	
South	148	
North	191	
Total	339	

10.5.4 Alcohol and Drug Dependency Services

Treatment of alcohol and drug dependency in Tasmania is provided at two centres, the John Edis Hospital in Hobart and the Launceston and Northern Tasmanian Alcohol and Drug Centre at the Launceston General Hospital.

The John Edis Hospital has facilities for out-patient, day-patient, and in-patient care as well as a 10-bed detoxification unit. The northern centre provides medical assessment and treatment

10.18 ALCOHOL AND DRUG SERVICES, TASMANIA, 1986–87

Facility	*Admissions*	*Individuals admitted*
John Edis Hospital	600	425
Region	*Individual Out/Day patients*	
South	790	
North	268	
North-west	156	
Total	1 214	

Alcohol and School Students

Survey research commissioned by the Alcohol and drug Dependency Board of Tasmania and released in 1986 showed:

- Most children have their first drink at home, under parental supervision, before the age of 11 or 12.
- The prevalence and frequency of drinking increases with age.
- Drinking prevalence and frequency has increased markedly over the last 15 years.
- The major psycho-social factors influencing drinking patterns are the relationships between the child and his parents and peers.

combined with individual counselling and group work. Beds are provided at the Lindsay Miller Clinic for medical treatment of a short duration while detoxification is managed at the hospital. In the south the service is planning to commence locally-based clinics at health centres.

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Chapter 11

SOCIAL WELFARE

The main objective of the Australian social welfare system is the alleviation of poverty. Support for families with children is also provided in accordance with the high value Australians have traditionally placed on family formation and child rearing.

In pursuing these objectives, certain major principles have long been embodied in the system:

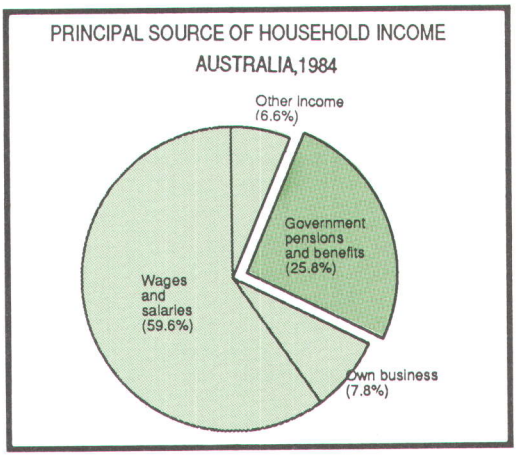
- the community as a whole accepts responsibility for the provision of income support to those individuals and families who are unable (or are not expected) to support themselves;
- payments are provided to such people as a right;
- payments are targeted towards particular categories of people in need (eg. to the aged, sole parents, the sick and unemployed) and, generally, according to people's means;
- support for children is provided in recognition that, at any level of income, people with children have greater needs than do those without.

Historically, the Federal Government became responsible for income security at a time when the only people seen to be 'in need' were those unable, as a result of age, widowhood or handicap, to support themselves.

The State Government's role has been one of child welfare, in areas of protection, neglect and care.

The past ten years, however, have seen both State and Federal Governments broadening their spheres of operations, introducing both family and community oriented services. For example:

- the recognition of the lone father by extending, in 1978, the supporting Mothers Benefit to encompass *all* lone parents;
- the introduction in the same year of the family Support Services Scheme for the introduction of new and innovative welfare services by the non-government sectors;



- in 1975, funds became available for Family Day Care Schemes and Childhood Services;
- in 1979, the Department for Community Welfare introduced the Family Assistance Scheme;
- funds were allocated to Neighbourhood Houses in 1981;
- such allowances as Family Allowance Supplement, Rental Assistance, Carer's Pension are among some of the many other services to be made available.

Against this, however, have been:

- the demise of the universal pension for people over 70 years;
- the abolition of family allowances for students over 16 who got Secondary Allowance Scheme (SAS) payments, and
- the change in child care funding from an operational subsidy to a fee relief scheme.

In the absence of a commonly accepted framework for describing and analysing 'social welfare' in its totality, two strands are prominent. A large component of 'social welfare' consists of cash payments to people in need. Although perhaps not all embracing nor definitive, the term income maintenance can be used to encompass all regular cash benefits paid to individuals.

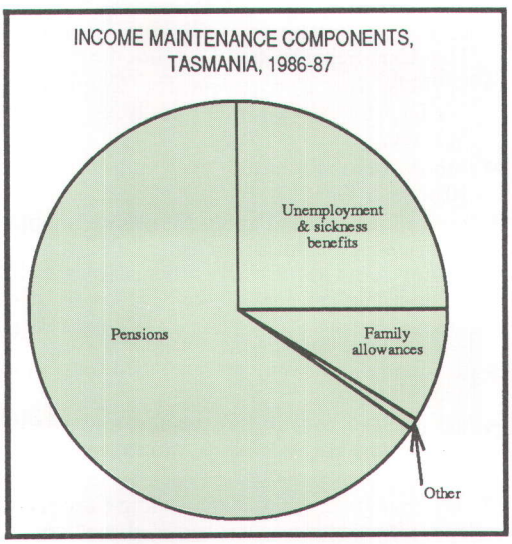
An equally large, if not larger, component of 'social welfare' consists of a vast array of direct services provided by governments, and non-government agencies, often with at least some funding provided by government.

Together, income maintenance payments and direct services to individuals, the 'social welfare' system is a complex net of activities providing communal assistance to individuals that in one way or another involves almost all members of our society.

11.1 INCOME MAINTENANCE

Income maintenance payments to individuals are mostly provided by the Federal Government. During 1986–87, $16 068 million were expended in Australia on social security and welfare by the Commonwealth, 27 per cent of the total Government outlay.

In 1986–87 $473 million were paid to Tasmanians in the form of pensions and benefits. At the end of the year (30 June 1987) in excess of 144 000 people (almost one third of the State's population) were being financially assisted with cash payments direct from the Federal Government.



11.1.1 Pensions

The introduction of a pension for aged persons in 1909 began Australia's national provision of social security payments. Since then a number of other regular income payments have been introduced to meet specific cases of perceived need: for people incapacitated for work, for spouses of age or invalid pensioners, for sole supporting parents. In addition, disability and service pensions have been provided for returned servicemen and women and their dependents.

11.1 DEPARTMENT OF SOCIAL SECURITY PENSIONS PAID, TASMANIA, 1986–87

Pension type	*Number of beneficiaries at 30 June 1987*	*Expenditure ($m)*
Age (*a*)	38 743	180.3
Invalid	10 904	53.9
Widow's	4 723	29.8
Supporting parents'	5 193	39.0
Sheltered employment allowance	513	3.1
Total	60 076	306.1

(*a*) Includes wife and carer pensioners.
Source: Department of Social Security Annual Report.

Age Pensions

Women aged 60 and over and men aged 65 and over are eligible for the age pension subject to income and assets conditions and residential qualifications.

During the financial year 1986–87 just over $180 million were paid to aged people in Tasmania. At June 1986, 65 600 people aged 60 or over comprised 15 per cent of the State's population of whom 60 per cent were age pensioners.

11.2 AGE PENSIONS, TASMANIA

Year	*Number at 30 June (a)*	*Financial year expenditure ($m)*
1975	34 269	60.1
1979	39 428	97.0
1983	41 639	143.9
1985	39 782	165.2
1987	38 743	180.3

(*a*) Includes wife/spouse/carer pensioners from 1983.
Source: Department of Social Security Reports.

By the year 2 001 an estimated 82 600 persons or 22 per cent of Tasmanians will be aged 60 or

over. At the same rate of pension claim, the number of pensioners will increase to 48 500.

Service Pensions

In addition to the Social Security age pension, the Department of Veterans' Affairs provides service pensions to male veterans aged 60 years and over and female veterans aged 55 and over. At June 1986 15 895 service pensions were being paid, 9 311 to veterans and 6 584 to wives and widows of veterans.

11.3 SERVICE PENSIONS, TASMANIA, JUNE 1986

War service	*Number of pensions*
1914–18 war	166
1939–45 war	14 045
Korea and Malaya	135
British Commonwealth	1 165
Allied Forces	250
Special overseas service	72
Miscellaneous	62
Total	15 895

In 11 years the number of service pensions has almost trebled. In that time the composition of the recipients has undergone considerable change due principally to a trebling in the number of World War II veterans reaching the age of eligibility. In 1975 the 5 375 service pensioners comprised: Boer War, 3; 1914–18 war, 1 088; 1939–45 war, 4 265; Korea and Malaya service, 17; and miscellaneous, 2.

11.4 SERVICE PENSIONERS, TASMANIA

Year	*Number at 30 June*	*Financial year expenditure ($m)*
1980	9 887	21.8
1982	12 093	32.5
1984	14 878	51.8
1986	15 895	63.5
1987	15 970	68.8

Invalid and Disability Pensions

An invalid pension is payable to people over 16 years of age who are permanently incapacitated for work (to the extent of at least 85 per cent), or are permanently blind. At 30 June 1987, 10 904 persons were receiving this pension.

In addition to the invalid pension provided through the Department of Social Security, the Department of Veterans' Affairs provides a similar pension to veterans as compensation for incapacity accepted as war-service related. At 30 June 1986, 16 774 disability pensions were being paid and expenditure for the year amounted to $31.9 million.

11.5 INVALID AND DISABILITY PENSIONS, TASMANIA

Year	*Invalid pension (a)*	
	Number at 30 June	*Financial year expenditure ($m)*
1979	8 052	20.7
1981	8 142	25.3
1983	8 530	32.2
1985	9 820	44.0
1987	10 904	53.9
Year	*Disability pension*	
	Number at 30 June	*Financial year expenditure ($m)*
1979	18 127	18.7
1981	16 944	21.9
1983	16 805	28.9
1985	16 743	38.8
1987	15 337	31.8

(*a*) Includes spouse carer pensioners from 1983.
Source: Departments of Social Security and Veterans Affairs reports.

An allowance equal to the invalid pension can be paid to people who work in approved sheltered employment services, if they are otherwise eligible for the invalid pension. During 1986–87 a total of $3.1 million were paid as sheltered employment allowances and at 30 June, 513 persons were receiving the allowance.

Widows' Pension and Supporting Parents' Benefit

The widows' pension was introduced in 1942 to provide a regular income for women who had lost the support of their partner. For the first year since 1977 the number of pensions paid dropped to under 5 000 at June 1985. At 30 June 1987 the figure had dropped to 4 723.

11.6 WIDOWS' PENSIONS, TASMANIA

Year	*Number of recipients at 30 June*	*Financial year expenditure ($m)*
1977	4 572	12.5
1979	5 229	16.6
1981	5 230	21.0
1983	5 144	24.2
1985	4 979	27.7
1987	4 723	29.8

Source: Department of Social Security reports.

Sole parents who have the custody, care and control of a qualifying child aged under 16 can be

eligible for a supporting parent's benefit. It was originally introduced in 1973 as the supporting mothers' benefit and renamed in 1977 when extended to supporting fathers.

Widows' Pension

A widow's pension may be paid to:

- a (de jure) widow;
- a woman who is a divorcee;
- a woman who has been deserted by her husband without just cause for a period of not less than six months;
- a woman whose husband has been convicted of an offence and has been imprisoned for a period of not less than six months;
- a woman who was the de facto wife of a man for at least three years immediately before his death; and
- a woman who is a victim of a bigamous marriage in certain circumstances.

Supporting Parents' Benefit

A person eligible for a supporting parent's benefit includes:

- a widower, or a man whose de facto wife has died;
- a male divorcee;
- a separated husband or wife or a separated de facto husband or wife;
- an unmarried parent;
- a parent whose spouse or de facto spouse has been convicted of an offence, and has been imprisoned as a result for 14 days or longer; and
- a married person left caring for a child or children and unable to live with his/her spouse in the matrimonial home because of the spouse's illness or infirmity.

The number of recipients has almost trebled in the ten years to 1987.

11.7 SUPPORTING PARENTS' BENEFIT, TASMANIA

Year	*Number of recipients at 30 June*	*Financial year expenditure ($m)*
1977	1 778	5.6
1979	2057	7.5
1981	3 519	13.6
1983	4 047	22.1
1985	4 776	30.3
1987	5 193	39.0

Source: Department of Social Security reports.

11.1.2 Unemployment and Sickness Benefits

Unemployment Benefits

With rising unemployment during the 1970s and early 80s, the number of people receiving benefits has risen more than five fold; from 3 825 recipients in 1970, to 18 880 people at June 1987 after a peak of 32 147 during 1981–82. As a consequence, the amount paid on this category of welfare expenditure is now exceeded only by age pension payments. During the 1986–87 year a total of 24 276 benefits were granted in Tasmania.

11.8 UNEMPLOYMENT BENEFITS, TASMANIA

Year	*Number of recipients at 30 June*	*Financial year expenditure ($m)*
1975	4 439	7.8
1979	10 420	28.6
1981	12 929	34.7
1983	20 355	78.3
1985	18 870	96.9
1987	18 880	109.5

Source: Department of Social Security reports.

An unemployment benefit may be paid fortnightly, generally after a seven-day waiting period, to people aged at least 18 but under 65 in the case of men or under 60 in the case of women. They must be Australian residents and in Australia on the day claims are lodged.

To be eligible for unemployment benefit a person must:

- have been unemployed for the period covered by the benefit;
- be capable of undertaking and willing to undertake suitable paid work;
- be taking reasonable steps to obtain work;
- not be unemployed due to being, or having been, engaged in industrial action;
- not be unemployed due to industrial action by other members of a trade union of which the person is a member; and
- be registered as being unemployed by the Commonwealth Employment Service.

Unemployment benefits paid to 16 and 17 year olds was replaced by a job search allowance. The allowance is subject to unemployment benefits rates and conditions, and a parental income test also applies.

Sickness Benefits

A sickness benefit is paid to people who have been temporarily incapacitated for work because of sickness or accident and who have suffered a

loss of income as a result of the incapacity or who, but for the incapacity would qualify for the unemployment benefit. During the 1986–87 financial year a total of 2552 benefits were granted in Tasmania, the lowest number since 1972–73. At June 1985, 1 025 benefits were being paid. An assets test on unemployment, sickness and special benefits for recipients aged 25 and over applied from December 1986 based on the pensions assets test threshold.

11.9 SICKNESS BENEFITS, TASMANIA

Year	*Number of recipients at 30 June*	*Financial year expenditure ($m)*
1977	4 662	2.4
1979	3 881	2.0
1981	3 626	2.9
1983	3 750	4.6
1985	1 025	5.5
1987	1 209	7.5

Source: Department of Social Security reports.

11.1.3 Allowances for Families

Family Allowances

In 1976 child endowment, along with tax rebates for dependent children, was replaced by a family allowance, usually payable to the mother.

People who have the custody, care and control of one or more children under 16, or one or more full-time students aged 16 to 24 inclusive, who are wholly or substantially dependent on them, may receive the family allowance. Payment is normally made to the mother. Payments for students aged 18–24 were withdrawn from November 1985 (other than for those in needy families). An income test applies to family allowance payments for children under 18.

11.10 FAMILY ALLOWANCE, TASMANIA,

Year (to 30 June)	*Number of dependents*	*Number of families & approved institutions*	*Financial year expenditure ($m)*
1977	129 394	61 358	31.2
1979	125 603	61 135	28.9
1981	123 270	61 309	27.8
1983	122 729	61 820	39.1
1985	123 079	62 734	42.8
1987	116 937	60 637	39.5

Source: Department of Social Security reports.

To be eligible for the allowance the person and children must have been born in Australia or intend to remain permanently in Australia. If neither of these conditions is met, family allowance is payable after the claimant and children have been in Australia for 12 months.

Child Disability Allowance

Child disability allowance is available to parents or guardians of mentally or physically disabled children under 16 or dependent full-time students aged 16 to 24 inclusive. The allowance is not payable if the student is receiving an invalid pension or supporting parent's benefit.

For the allowance to be payable the disabled child must require and receive constant, or almost constant, care and attention because of the disability and must be living in the family home.

Child disability allowance was formerly known as handicapped child's allowance.

11.11 CHILD DISABILITY ALLOWANCES, TASMANIA

Year	*Number of recipients at 30 June*	*Financial year expenditure ($'000)*
1977	467	345
1979	568	407
1981	766	529
1983	863	839
1985	996	916
1987	1 027	975

Source: Department of Social Security reports.

Double Orphan's Pension

A guardian or an institution may be paid a double orphan's pension for a child under 16, or a dependent full-time student aged 16 to 24 inclusive, whose parents are dead. The pension is also payable if one parent is dead and the whereabouts of the other parent are not known or is serving a sentence of imprisonment of 10 years or more or is an inmate of a mental hospital and will require care and treatment in that or a similar hospital for an indefinite period.

11.12 DOUBLE ORPHAN'S PENSIONS, TASMANIA

Year	*Number of recipients at 30 June*	*Financial year expenditure ($'000)*
1979	93	54
1981	88	53
1983	122	84
1985	110	72
1987	56	53

Source: Department of Social Security reports.

Family Allowance Supplement

Certain low income families are eligible for a family allowance supplement, an income-tested, non-taxable supplement payable for each child under 16 years or dependent full-time students aged 16 to 24 inclusive.

A person may qualify, subject to residence requirements, for the allowance provided that:

- the person or his/her spouse is qualified to receive family allowance for a child;
- the person or his/her spouse is not in receipt of other forms of Commonwealth income support or overseas payment that provide for additional payments in respect of that child; and
- the child does not receive or attract payment of a Commonwealth income-tested pension, benefit or allowance.

The allowance is generally paid to the person receiving family allowance for the child (normally the mother). Family Allowance Supplement was formerly known as Family Income Supplement.

11.13 FAMILY ALLOWANCE SUPPLEMENT, TASMANIA

Year	*At 30 June, number of*		*Financial year expenditure ($m)*
	Recipients	*Children*	
1983	1 076	2 843	0.2
1984	1 418	3 844	1.8
1985	1 309	3 607	2.1
1987	1 498	4 102	2.8

Source: Department of Social Security reports.

11.1.4 Other Benefits and Allowances

The social security system provides a number of other allowances additional to the main benefit provided, the most significant of which are the special benefit, funeral benefits, and fringe benefits for pensioners.

Special Benefit

A special benefit may be paid to people who are not eligible for a pension, unemployment or sickness benefit but who are unable to earn a sufficient livelihood for themselves and their dependants.

The grant of a special benefit and the rate of payment are at the discretion of the Secretary of the Department of Social Security. The rate may not exceed the rate of unemployment or sickness benefit that would be paid if the claimant were qualified to receive either of those benefits.

The benefit is designed to meet cases of special need and payments may be made immediately in an emergency.

Funeral Benefit

A funeral benefit of $20 is payable to a person liable for the funeral costs of an eligible age, invalid, wife or spouse carer pensioner or of a recipient of sheltered employment allowance, a tuberculosis allowance, or rehabilitation allowance in lieu of one of these payments. A benefit of up to $40 is payable to an eligible age, invalid, wife, spouse carer or widow pensioner, a supporting parent beneficiary, or a person in receipt of a sheltered employment allowance, tuberculosis allowance, or rehabilitation allowance in lieu of one of these payments, or a repatriation service pensioner who is liable for the funeral costs of a spouse, child or other eligible social security pensioner.

11.14 SPECIAL BENEFITS AND FUNERAL BENEFITS, TASMANIA, 1986–87

Benefit	*Number of benefits granted*	*Expenditure ($'000)*
Special	2 822	3 946
Funeral	1 039	36

Source: Department of Social Security reports.

Fringe Benefits

The majority of pensioners, beneficiaries of sheltered employment, rehabilitation and supporting parent allowances are entitled to a range of non-cash benefits including concessions on pharmaceuticals, free hearing-aid services, telephone and postal concessions, concessions on some rail and bus travel, council rates, driver's licences, car registration fees, power charges and land taxes. At 30 June 1987, 51 706 pensioners (85.6 per cent of all pensioners) were receiving pensioner fringe benefits.

In addition, the State Department for Community Welfare provides a number of supplementary allowances to people who are in receipt of pensions or benefits and who satisfy a means criterion.

11.15 SUPPLEMENTARY ASSISTANCE 1986–87

Assistance	*No. assisted*	*Expenditure ($)*
Heating allowance	10 801	587 317
Spectacles	5 873	379 355
Furniture removals	297	28 837
Funeral expenses	169	85 316
Transport	21	3 148
Mortgage Rental Relief Scheme	1 064	167 241

Source: Department for Community Welfare Annual Report.

11.2 DIRECT SERVICES

While it is the Federal Government that provides almost all income maintenance payments, it is the State Department for Community Welfare, together with voluntary agencies, that provide the personalised help to people in need.

Services provided by the Department, including child welfare, assistance to families and individuals, community programs and grants accounted for more than $15 million in 1986–87.

11.16 STATE GOVERNMENT WELFARE EXPENDITURE, 1986–87 ($)

Management Services	1 107 000
Assistance to Families and Individuals	2 248 000
Child Welfare	6 537 000
Financial Assistance to Community Organisations	5 343 000
Community Services	601 000
Total	15 836 000

Source: Department for Communit Welfare Annual Report.

11.2.1 Child Welfare

Child welfare is primarily focussed on neglected, or orphaned children and children brought to notice through the courts.

Children Under Supervision

The *Child Welfare Act* provides that children who are found guilty of offences and those who are found to have been neglected may be placed under the supervision of a Child Welfare Officer for a period up to three years. Whilst this order requires the child to comply with the reasonable directions of the officer, its principal purpose is to facilitate the provision of advice, guidance, counselling and practical help. At 30 June 1987 there were 133 children under the legal supervision of Child Welfare Officers.

Wards of the State

As at 30 June 1987 there were 480 children under Guardianship of which 267 were males and 213 females.

A child may become a Ward of the State in a number of ways. A parent may apply to the Minister to have their child admitted into Guardianship. This practice is most common in the case of babies who are offered for adoption but who are not suitable for immediate placement. A Children's Court may declare a child to be a Ward of the State after finding that the child is neglected, or after finding the child guilty of a certain class of offence. The *Child Welfare Act* also provides for a parent to submit a plea at a Children's Court that their own child is beyond their control.

Once a child has become a Ward of the State, the Director for Community Welfare becomes his or her legal guardian to the exclusion of all others. Through the staff of the Department, and with the help of individuals and groups in the community, the Director may exercise this responsibility for guardianship in a variety of ways.

In many cases it is considered to be in the best interests of a child to provide care by supplementing, rather than substituting for, the care offered by the natural parents. Where it is necessary to remove the child from his/her normal home, it often remains possible to assist both the child and parents in a way which leads towards the re-establishment of a normal and fulfilling parent/child relationship.

11.17 PLACEMENT OF WARDS OF THE STATE, JUNE 1987

Approved Children's Homes	43
Family Group Homes	39
Institutions	16
Foster Care	227
Living with parents or relatives	91
Living independently	47
Other	17
Total	480

Foster Homes

Some children, through circumstances beyond their control, are unable to live with their natural parents. In some cases their parents are dead, missing, or unable to provide for them. Foster homes provide a form of long-term 'substitute care' approximating more closely to that of a normal family environment. Foster care also provides sensitive and appropriate short-term care for special categories of children.

Children's Homes

Children's Homes are run by charitable bodies to provide care for children. They are approved under the *Child Welfare Act* 1960 to care for Wards of the State, but also receive other children on the application of their parents or the request of the Department for Community Welfare.

Each home has its own style of operation and seeks to meet the needs of a particular group of children. The Department pays an allowance for each approved bed as well as a board rate for each Ward and a contribution towards the cost of caring for other children. Grants have tradi-

tionally been provided for both administrative support costs and for specialist support services to the children in care. Grants are now also being used to encourage community based child welfare organisations to develop innovative child welfare services within specific communities.

11.18 GRANTS TO APPROVED CHILDREN'S HOMES, 1986-87 ($)

Clarendon Children's Homes	26 000
Community Hostels — Mara House	500
Foster Parents Association	6 170
Glenhaven Children's Homes	21 000
Glendel Children's Homes	12 155
Kennerley Children's Homes	27 675
Launceston Community Church	3 500
Tasmanian Children's Community Chest	3 000
	100 000

Source: Department for Community Welfare Annual Report.

Family Group Homes

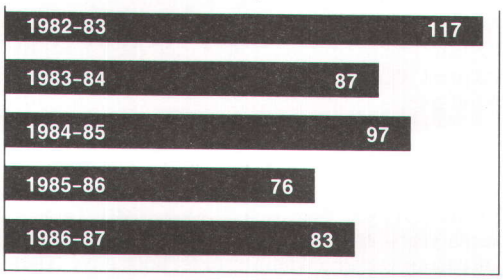
The Department for Community Welfare owns 18 family group homes. All residences are large family homes, strategically placed throughout the State and run by married couples who care for up to six children at a time. Care is provided for a wide range of children including Wards of the State, for short periods of time.

Reasons for admittance to a family group home include the emergency care of children who are — or appear to be — neglected, and care whilst a child's normal family home is unavailable (perhaps because a mother is in hospital).

Adoption

Adoption is regarded first and foremost as a service for children. Adoption is the legal and social process which enables a child to become a complete and permanent member of a new family. Through adoption the child is able to enjoy the same rights and acquire the same legal status within the family as if he or she was a child born of the marriage.

ADOPTIONS, TASMANIA



Review of Tasmanian Adoption Legislation

A major review of the State's adoption legislation, which was initiated in 1985 concluded in October 1986. About 92 separate recommendations for changes to existing laws were presented to the Minister. Following Cabinet approval of the Review Committee's recommendations in their entirety a new adoption Bill was expected to go before Parliament.

Inter-Country Adoption

Interest in inter-country adoption continues at a high level within Tasmania with a total of 96 applications on the waiting list as at 30 June 1987.

Between July 1986 and June 1987, 51 applications for inter-country adoptions were received and 43 children from overseas were placed with approved applicants (19 more than for the previous year). Countries from which children were received during this period were: Korea 30, Sri Lanka 11, India 1 and Thailand 1.

Residential and Community Youth Services

Residential and community youth services in co-operation with field services provides special support and assistance to children and young people whose behaviour may be damaging to themselves or others.

The services are provided through two residential institutions (Ashley Home for Boys and Wybra Hall) and through two non-residential Resource Units.

Ashley Home for Boys

Ashley provides residential institutional care for 14 to 17 year old male offenders. It includes a secure section, although the Home is regarded as a medium to low security facility. There is an increasing focus on integrating Ashley programs with the wider community and in developing specialist programs to match the needs of the young people in care. Current programs include: personal development; small engine and bicycle restoration; rollover program (community integration); independent living; drug education; artist in residence; and camping and woodworking.

Wybra Hall

The purpose of Wybra Hall is to provide residential care, custody, control, guidance and direction to young people to increase their ability and opportunity to find a socially acceptable and satisfying way of participating in the community. Wybra Hall caters for girls up to the age of 18 years and boys up to the age of 15 years.

Wybra Hall is child centred and the staff have a collective responsibility to establish positive working relationships, as well as maintaining a

high standard of mutual trust and understanding in order to fully recognise and acknowledge the needs of the individual child.

In addition to providing supervision, control, custody and direction to young people, Wybra Hall also develops the young person's knowledge and skills, as well as assisting them to review their circumstances, so as to increase their ability to live satisfying and socially acceptable lives.

Officers at Wybra Hall work closely with services both within and outside the Department for Community Welfare, thereby providing the opportunities for each young person to find a place in the community which best meets the needs of their personal development and well being.

Where possible the children at Wybra Hall attend local schools. With the co-operation of the Education Department, this program has been most beneficial to the children. In addition, the Education Department provides funding for a special school unit to operate within Wybra Hall for those children who cannot be catered for elsewhere.

11.19 OCCUPANCY OF GOVERNMENT RESIDENCES FOR CHILDREN, TASMANIA

At 30 June	*Ashley Boys Home*	*Wybra Hall*
1981	19	13
1983	21	14
1985	12	3
1987	13	7

Source: Department for Community Welfare Annual Report.

Child Care

The Department for Community Welfare is responsible for the licensing and supervision of facilities where a fee is charged to provide substitute care for children younger than seven years.

These responsibilities include assessment of applicants, maintenance of a support service to licensees, and the keeping of records of holders of current licences. In carrying out these duties, the over-riding aim is to encourage and develop a range of services to meet the needs of families who require substitute day care or short term overnight care for their children.

The Department for Community Welfare staff actively foster community management of locally based children's services and promote high quality care, particularly through training programs and meetings, provision of resource materials, and access to the Department's toy and equipment library.

In June 1986 Tasmania agreed to participate in the Commonwealth–State co-operative arrangements to establish 267 long-day-care centre-based places throughout Tasmania. As a result of the May 1987 'Economic Statement', 30 of these places were converted to family day-care places. Since June 1986, three centres with a licensed capacity of 25 places each have been established in Clarendon Vale, Wynyard and Queenstown. Centres due to be completed before December 1988 are planned for Ravenswood, Launceston South, Glenorchy and Rosny. In addition, extensions to the Bridgewater, Channel, Community Child Care centres have been approved.

The demand for quality child care continues to exceed supply. An increasing number of children in the 0–5 year age range are spending up to fifty hours in care each week.

Regional Resource Centres

These centres offer day, after-school and holiday activities as a medium through which children and families requiring assistance can receive the support and help which would otherwise have only been available if the children had been received into the full-time care of the Department for Community Welfare. The service provides a more cost-efficient service than residential services and has the capacity to reduce the pressure of numbers, and thus costs, of residential care.

11.2.2 Family Assistance

The Department for Community Welfare has developed a comprehensive program of assistance to individuals and families. These programs comprise financial relief in emergency situations, supplementary and on-going assistance programs and services such as the home-help and home-maker schemes.

Emergency Assistance

Funds are available to field officers to be used in times of crisis or in situations where the family is in danger of breakdown because of immediate financial pressures.

Under Family Assistance, needs such as accommodation costs, debt settlement, essential repairs to household appliances, clothing and household power costs, can be met. All applications for assistance are carefully investigated and need established before a payment is made.

The front-line in many emergency situations is normally the non-government sector. Nevertheless, from time to time situations occur when the

Department itself has no alternative other than to provide a quick response where no other service can assist.

11.20 ASSISTANCE PROVIDED BY DEPARTMENT FOR COMMUNITY WELFARE, TASMANIA (Number of Cases)

Type of Assistance	*1985–86*	*1986–87*
Emergency —		
Family Assistance	1 172	881
Food Orders	7 803	7 377
Mortgage Rental Relief	1 064	949
Supplementary —		
Heating Allowance (*a*)	10 917	10 801
Spectacles	6 069	5 873
Furniture Removals	227	297
Funeral Expenses	182	169
Transport	36	21

(*a*) Figures represent on-going cases as opposed to new cases during the year.

Source: Department for Community Welfare Annual Report.

In addition to the provision of direct assistance, the Department for Community Welfare provides grants to enable agencies to meet demands for emergency relief.

11.21 GRANTS TO COMMUNITY AGENCIES FOR EMERGENCY RELIEF, 1986–87

Organisation	*$*
Hobart City Mission	32 000
Glenorchy City Mission	8 000
Christian Care Group, Rokeby	7 500
Bridgewater-Gagebrook Community Service Group	31 000
Launceston City Mission	24 000
Society of St Vincent de Paul	25 000
Australian Red Cross	1 500
Tasmanian Aboriginal Centre	3 000
Total	132 000

Source: Department for Community Welfare Annual Report.

Family Support

The Department for Community Welfare provides services to meet the needs of neglected children and young offenders. There are, however, many children and families who experience difficulties and seek help, although they do not fall into either of these categories. Often this help requires only a brief involvement with the Department, but where a longer period of assistance is agreed upon the service is referred to as 'Family Support'.

At 30 June 1987 there were 78 families receiving Family Support.

Homemaker Service

The Homemaker Service provides more intensive family support to those who require such help. Homemakers provide an advisory, referral and supportive service with child care, budgeting, domestic organisation and other related areas.

The objectives of the service are to assist the children to remain with or be reunited with his or her parents and to support families to achieve tasks essential to the survival of the family and allow them to move on to the task of meeting the child's developmental needs for education and growth.

The service aims to preserve family integrity and offer support in the home and neighbourhood and provides an alternative to institutional care, either of parent or of child.

During 1986–87, 336 children from 130 families received support. There were 61 new family support cases during 1986–87.

11.2.3 Community Programs

Youth Services

The Tasyouth Unit of the Department for Community Welfare is responsible for identifying and meeting, where possible, the needs of young people by providing grants to non-government organisations working with unemployed youth.

11.22 TASMANIAN GOVERNMENT GRANTS FOR YOUTH SERVICES, 1986–87

Organisation	*$*
South —	
Hobart Streetwork Group	25 785
Kingborough Unemployed Concern Group	15 000
Youth Affairs Council	10 000
Chigwell C.Y.S.S. Evening Program	1 100
Clarence Council Evening Programs	3 000
Glenorchy Community Evening Program	2 800
North —	
Outreach Child and Family Service	13 000
Youthline	2 000
North West —	
Youthlink	14 000
KARE	2 200
Devonport Youth Theatre	1 115
Total	90 000

Source: Department for community Welfare Annual Report.

The problem of homeless youth, while not new, has become more visible in recent years. Services to homeless youth include: emergency shelters; teaching of survival skills, and reconciliation where possible between parents and youth.

The aim is to provide homeless youth with shelter in the short term and the skills in the long term to maintain independent accommodation. The valuable work of non-government organisations is an important adjunct to this service for which funds are provided.

11.23 GRANTS FOR YOUTH SERVICES ACCOMMODATION PROGRAMS, 1986–87

Organisation	$
Youth Housing Task Force	2 836
Anglican Family Care Services (*a*)	178 174
HYPO	99 988
Northern Youth Shelter	156 360
North-West Youth Shelter	164 671
Stepping Stone	86 511
Fusion Youth Shelter	17 652
Total	706 192

(*a*) Includes funding for Youth Shelter and North-West Housing Outreach.

Source: Department for Community Welfare Annual Report.

Handicapped Persons' Services

The trend towards disabled people living at home rather than in special institutions has increased the demand for community support services as disabled people strive for a better quality of life.

During 1986–87 the proportion of grants paid to organisations providing day care and activity services for more severely handicapped dependent persons was increased to approximately 40 per cent of the handicapped services budget.

The Commonwealth Rehabilitation Service assists handicapped people to become economically and socially independent. The service is free to virtually any disabled person in the broad working age group who can benefit from it. Teams comprising medical specialists, therapists, trade instructors, teachers and vocational counsellors work towards developing each person's maximum physical, mental, vocational and social potential. A rehabilitation allowance is payable to people who are receiving vocational treatment or training under the CRS program.

Multicultural Services

Assistance is provided to help integrate migrants and refugees into the Tasmanian community. Financial support is given for the continuation of ethnic cultures.

11.24 GRANTS TO MIGRANT ORGANISATIONS, 1986–87

Organisation	$
St Martino Vietnamese Group	995
Kangaroo Island Pioneer's Club	100
Migrant Resource Centre (Southern Tasmania)	5 000
Migrant Resource Centre (Northern Tasmania)	2 667
Ethnic Communities' Council of Tasmania	1 000
Australian–Yugoslav Association	500
Task Force Action for Migrant Women	1 100
Australian Indonesian Association	600
Polish Association of Northern Tasmania	1 500
Hispano–Australian Society	500
Good Neighbourhood Council of Tasmania	1 000
Total	14 962

Source: Department for Community Welfare Annual Report.

Migrants and refugees totalling 948 persons arrived during 1985–86. This was 153 more than in 1984–85 and represented about 1 per cent of the total Australian overseas migrant intake.

11.25 MIGRANT ARRIVALS IN TASMANIA

Region/Country of Birth	*1983–84*	*1985–86*
UK and Ireland	215	251
Northern Europe	67	101
Southern Europe	17	22
Middle East	9	20
USA and Canada	45	49
South & Other America	9	5
Africa	36	49
Asia	248	276
Oceania	121	171
Australia	5	4
Total	772	948

Source: Department of Community Welfare Annual Report.

Women's Shelters

Women's Shelters have as their primary purpose the provision of shelter and support services to women and children who have been subjected to domestic violence or who are rendered homeless through some personal or social crisis. Most shelters are not designed to provide accommodation to women and children requiring intensive, sustained specialised services and in cases where it is necessary to provide longer term accommodation and more intensive support, funding is made available to specific purpose refuges. Annie Kenney and Karinya for example accommodate

single young women only and Caroline House provides for women with alcohol and drug related difficulties.

Approximately 2000 women and children were accommodated during 1986–87.

Most shelters have not been established to provide longer term support although most are forced into this role because of the increasing difficulty faced by women with children in locating alternative accommodation. The Housing Department continues to provide valuable assistance to both the Launceston and Hobart Women's Shelters in making special provision for women and children accommodated in refuges who seek public housing. Women moving out of the shelter in need of financial assistance may apply to the Family Assistance Scheme.

Shelters vary in respect of the mode of management employed and the intensity and breadth of services provided to users. Some shelters employ a style of management which involves the users of the shelter in the everyday operations of the shelter, e.g. cooking, cleaning, shopping. Staff are free to engage in the primary functions of the shelter, e.g. the provision of support and information to women in crisis. Other shelters have adopted a less participatory style of operation and have as their primary focus the provision of accommodation to women and children in crisis. All shelters are required, as a condition of funding, to provide services which are accessible on a 24 hour, 7 day a week basis. Some shelters provide a field work service to women who have left the shelter but who require continued support and visitation to prevent their return to the shelter.

The Crisis Intervention Unit

The crisis intervention service is statewide and is primarily directed at providing a crisis service (in co-operation with the police) to victims of domestic violence and their families.

The unit has a staff allocation of 7.5 equivalent full-time positions and is based in the main urban areas of Hobart, Launceston and Burnie. The total annual budget is $239 000.

As most assaults take place at night or on weekends an after hours service is provided seven nights a week. A post-crisis follow-up service is provided to ensure that clients gain access to the legal and support services required to prevent further violence.

During 1986–87 crisis intervention staff attended 762 calls. The police department was responsible for referring 50 per cent of the clients, 30 per cent were self referred and 20 per cent were referred by other State or community agencies.

Men assaulting the women with whom they were living accounted for 61 per cent of all calls while 24 per cent were the result of men assaulting estranged partners. The remainder included sibling assault, parents assaulted by children and children assaulted by parents.

Eighty-one per cent of all assaults involved past repetitious violent behaviour, often over many years. Alcohol abuse on the part of the offender was involved in 47 per cent of assaults. Emergency accommodation and legal services were the services most often provided. It is essential that women at risk be assured of a place of safety and information about their legal rights.

Funds are also made available to provide for telephone installation costs for families at risk, particularly when a telephone is essential to the enforcement of a Domestic Restraint Order. Future plans include a program to provide improvements to home security to prevent harassment from an estranged partner and the installation of facilities to enable radio access between the Police Radio Room and mobile staff of the unit.

Neighbourhood Houses

The Neighbourhood Houses Program is a joint investment by government and local communities in the planning, development and management of community services at the neighbourhood level. Houses provide a wide range of community services such as recreational activities, child care, fitness classes, life skill classes, adult education, meeting facilities, community newsletters, effective parenting courses, food co-operatives and ante-natal clinics.

Neighbourhood Houses are managed by representatives of local communities and not by single organisations. Although Houses may employ a paid co-ordinator to assist in management of the day-to-day activities of Houses, most of the projects and activities are run by local residents. In this way, Houses can take advantage of people with a broad range of skills and backgrounds, promote the development of services relevant to the needs of the local area and be more accountable to the communities they serve.

The aim of Neighbourhood Houses is to assist families and individuals to identify and solve their own problems, reduce dependence on formal government services, establish and strengthen local community networks and provide people with a greater opportunity to control their own lives.

The provision of child services has facilitated women's involvement in Neighbourhood Houses. Women comprise the largest group of users of Neighbourhood Houses and most Houses are

11.26 TASMANIAN GOVERNMENT GRANTS TO NEIGHBOURHOOD HOUSES, 1986–87

House	*$*
South —	
Bridgewater Neighbourhood House	6 480
Chigwell Neighbourhood House Committee	13 200
Clarendon Vale Neighbourhood Centre	15 400
Colony 47	3 520
Gagebrook Neighbourhood Centre	14 325
Geeveston Neighbourhood House	14 130
Goodwood Community Centre	12 300
Maranoa Heights Neighbourhood Centre	15 780
Midway Point Neighbourhood Centre	11 350
Richmond Neighbourhood Centre	12 000
Risdon Vale Neighbourhood Centre	11 950
Rokeby Neighbourhood Centre	10 350
Warrane/Mornington Neighbourhood Centre	12 600
West Moonah Community Action Group	4 330
North —	
Beaconsfield Municipality	10 117
Fingal Neighbourhood House Association	4 516
George Town Neighbourhood House	11 660
Mowbray Neighbourhood House	14 932
Ravenswood Neighbourhood House	14 350
Rocherlea Community Centre	15 110
St Helens Neighbourhood Centre	9 600
North-West —	
Acton/Shorewell Community House	13 020
Devonport Community House	15 500
Rosebery Neighbourhood Centre	15 580
Savage River Neighbourhood House	11 350
West Ulverstone Community House	5 600
Zeehan Neighbourhod Centre	7 790
Total	306 840

Source: Department for Community Welfare Annual Report.

managed by women. Problems of isolation and disadvantage caused by geographic location, inadequate income, poor transport services and lack of community services are often most intensely felt by women, the aged and the unemployed. Neighbourhood Houses provide women especially with opportunities to reduce individual isolation, widen their range of interests and help them develop skills which can be used in the development of a better environment for themselves and for the benefit of the wider community.

There are 27 Neighbourhood Houses in various stages of development throughout the State. Most Houses average 200 contacts per week.

11.2.4 Residential Care for the Aged and Disabled

Under the *National Health Act* and the *Nursing Homes Assistance Act*, the Commonwealth provides recurrent subsidies to nursing homes for the aged and disabled. There are 53 nursing homes in Tasmania providing 2 135 beds for which the Commonwealth provided $29.3 million in 1986–87. There are also 23 hostels offering 716 beds which in 1986–87 received $1.4 million in Commonwealth subsidies.

In addition the *Aged or Disabled Persons Homes Act* 1974 of the Commonwealth provides for capital grants to non-profit organisations and local government bodies. During 1986–87 grants totalling $1.8 million were paid in Tasmania.

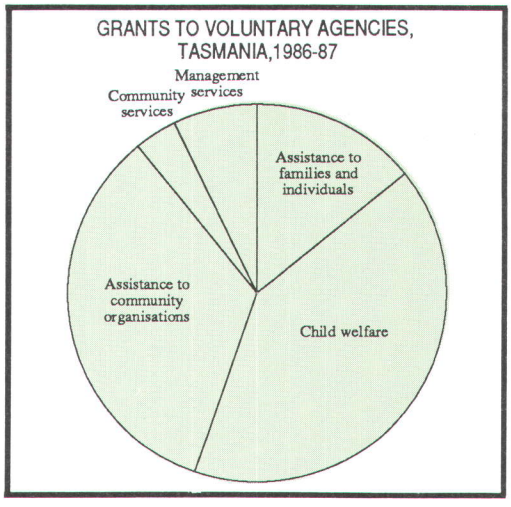
11.3 VOLUNTARY AGENCIES

It has long been recognised that many welfare services are effectively and efficiently provided by the many voluntary welfare agencies which operate throughout the State.

The non-government sector can usually respond swiftly to emerging community needs and can also provide significant voluntary support to funded services.

In an environment of increasing levels of need, and increasing scrutiny of the spending of the welfare dollar, it is important to ensure that funded programs complement rather than duplicate existing services.

State Government grants to voluntary welfare agencies in 1986–87 totalled just over $5.3 million, a third of the State's total expenditure on welfare for the year.



In addition to receiving government grants, voluntary agencies rely heavily on voluntary labour and donations from the public to provide assistance to needy families. Services provided include shelter for the homeless, provision of household items, food parcels, clothing and toys for families in need, as well as counselling and support services. Many organisations also provide long-term accommodation in hostels and homes for invalid and elderly people.

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Chapter 12

AGRICULTURE

Agriculture commenced in Tasmania with settlement in 1803, the total livestock amounting to one bull, ten cows, two rams, thirty sheep, thirty-eight pigs, eight goats and one horse. Ever since then, the agricultural sector has been vital to the development and prosperity of the State.

Despite all obstacles the settlers succeeded in the first season in harvesting a crop which gave them a small surplus for seed. On the government farm similar progress was made. By July 1804 it consisted of 19½ acres of wheat, 1¾ acres of oats and 2¼ acres of rye.

By 1820 wheat had emerged as Tasmania's principal agricultural produce; the climate favoured higher yields and the price differential resulting from its higher quality was regarded as being sufficient to outweigh the higher transport costs incurred in selling to the New South Wales markets.

By the early 1820s Tasmanian agriculturalists were sufficiently confident of their progress and potential to undertake further diversification and expansion.

The growth of the British textile industry encouraged a corresponding expansion of the State's wool industry; the 1830s and 40s saw the first utilisation of the midlands for sheep grazing. By 1850 Tasmanian sheep numbers exceeded the two million mark for the first time; their numbers were not to attain this level again until 1931. As a result, the wheat industry contracted somewhat; nevertheless wheat production still regularly exceeded that of New South Wales in this period.

The second half of the nineteenth century was marked by agricultural development in the northern regions of the State, led primarily by the growing numbers of small independent farmers. Their efforts, however, were not entirely successful partly due to the usual shortages of labour and capital. Of more significance was their failure to find any crop which could establish a comparative advantage. The newly-cleared forest lands of the north proved unsuitable for wheat and eventually potatoes were to emerge as a viable alternative in these areas.



The 12 500 megalitre Craigbourne Dam on the Coal River between Colebrook and Campania was officially opened in November 1986. Photo: *Mercury*

The 1880s and 90s brought significant developments. The successful shipment overseas of apples in the eighties and butter in the nineties led to the establishment of orcharding in the Huon region and of dairying in the north. Both industries were to become characteristic of their respective regions and were to cement trade links with Britain, the early principal consumer of these commodities.

From 1900 to 1914 Tasmanian agriculture prospered from the newly-established free trade within the Australian Federation as well as from its expanding overseas trade. Free trade had the effect of opening mainland markets to Tasmanian specialities. Potatoes, fruit and hops benefited considerably from this new access. Hops, for instance, doubled in acreage during this period. Rising prices after 1902 opened British markets yet further to Tasmanian wool and dairy products.

The First World War intervened to put an end to this expansionary trend. In a period of wartime shortage of labour, equipment and markets, beef production took precedence over dairying in many areas. The production of wool and fruit growing however, continued at a moderate level of prosperity.

The early 1920s saw a renewed vigour in Tasmania's agriculture in the wake of the optimism created by the Allied victory. After 1925, however, farming tended to become a rather less profitable activity. In 1926 a price support scheme was adopted for dairying and, as the prices of other products continued to fall, many non-dairy farmers turned their efforts to butter production, attracted by its apparent stability. The later twenties are characterised by the growing diversification of activity on farm holdings, principally as a hedge against the growing economic uncertainties of the period.

The arrival of the Depression in the early 1930s wrought changes which were to permanently alter the character of Tasmanian agriculture. The progressive impoverishment of arable soils and the low carrying capacity of pastoral properties became evident as farmers experienced the effects of inefficient techniques and low production. The later thirties, with the gradual lifting of the Depression, were marked by the greater use of mechanisation, the widespread adoption of new seed varieties and the discovery and remedying of trace element deficiencies. This period witnessed a substantial investment in pasture improvement, in contrast with the methods of the preceding century.

The advent of World War Two intervened to arrest these promising developments. Despite shortages the war brought at least one agricultural benefit to the State. The increased demand by the armed forces for conveniently packaged foods for front-line troops led to the introduction of vegetable canning facilities to Tasmania.

The early 1950s was a period of recovery. The wool boom of 1951 provided funds for desperately needed re-investment, and the period 1954–64 was one of unparallelled expansion. Farms tended toward greater size and specialisation while labour input and farm numbers declined. New Asian markets for wool were opened and governmental involvement increased. 1964 saw the setting up of the Artificial Breeding Board (known since 1977 as The Tasmanian Herd Improvement Organization) and artificial insemination techniques found increasingly wide favour. Today, almost one quarter of the State's dairy cows are bred artificially.

Far reaching changes faced Tasmanian agriculture in 1973, when Britain joined the European Economic Community. Tasmanian produce was effectively barred from its important and traditional British market causing a significant decline in apple and butter production. It is to this cause that Tasmania's gradual abandonment of its traditional orcharding activities can be attributed.

In recent years the trend has again been towards diversification of both markets and products. Attempts to reach further Asian markets have met with varying degrees of success and a number of entirely new, often experimental, ventures have been undertaken. The State's unique poppy industry is one early and particularly successful instance. Tasmania's production of alkaloids from the poppy plant for pharmaceutical preparations today runs third to that of the traditional producers, India and Turkey. Other ventures which have made considerable progress include the nascent wine industry — the State has currently some twenty vineyards in operation — and experiments in the areas of berry fruit of various kinds, deer farming, and the cultivation of essential oil crops.

In 1986–87 the total value of agricultural production was $436.8 million which was an increase of 12 per cent over the previous year's figure of $390.2m. A major component of the rise was the increase in average wool prices from $3.48/kg to $4.26/kg giving a total value increase of $21.9m, from $83.7m in 1985–86 to $105.6m in 1986–87.

The total value of crops in 1986–87 was $147.8m with, for the first time, potato production being worth more than apple production.

12.1 GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED, TASMANIA ($million)

Agricultural sector	*1985–86*	*1986–87*
Crops	147.8	144.9
Livestock slaughtered and exported for slaughter	95.1	111.5
Livestock products	147.3	180.4
Total agriculture	390.2	436.8

12.1 LAND USE

At March 1987 a little under 1 873 000 hectares of land in Tasmania were being utilised for agricultural purposes. This represents some 30.4 per cent of the State's total land area of 6 833 100 hectares.

By far, the greatest proportion of Tasmania's agricultural land is given over to the grazing of sheep and cattle. This activity accounts for 95.8 per cent of the total use of agricultural land. Of this grazing land, 46.4 per cent is sown pasture, the remainder being simply cleared and fenced bushland.

The cultivation of crops used 4.2 per cent of the total agricultural land.

12.2 AGRICULTURAL LAND UTILISATION, TASMANIA, 1986-87 (hectares)

Purpose	*Area*
Crops	77 908
Sown pasture (including area harvested)	832 368
Balance (used mainly for grazing)	962 518
Total	1 872 794

Just over 3 637 commercial farming establishments make up Tasmania's agricultural sector. More than 75 per cent carry cattle.

12.3 NUMBER OF ESTABLISHMENTS GROWING PRINCIPAL CROPS OR CARRYING LIVESTOCK, TASMANIA, 1987

	1985-86	*1986-87*
Number of establishments growing —		
Barley for grain	522	426
Oats for grain	415	327
Wheat for grain	125	116
Hops	17	16
Orchard fruit	255	252
Potatoes	515	557
Carrying —		
Breeding ewes	1 803	1 793
Sheep (all types)	1 933	1 967
Breeding sows and gilts	165	166
Pigs	225	220
Cattle (all types)	2 767	2 817
Total establishments	3 413	3 637

12.1.1 Sown Pastures and Principal Crops

The area utilised for the raising of crops for both stock and human consumption amounts to 910 277 hectares. Of this, the majority is used for the cultivation of unharvested feed; stock are simply turned out to graze upon the mature crop. This form of cultivation comprised 778 554 hectares, while a further 53 815 hectares of harvested pasture was stored in the form of hay, green feed or silage.

The past few years have seen the growing popularity of silage as a form of feed storage. This can be attributed to the comparative ease with which silage can be collected and stored. Requiring only a covered pit and minimal preparation, silage eliminates the capital demands of hay baling and shed storage entirely.

12.4 AREA OF SOWN PASTURE, TASMANIA (hectares)

Pasture	*1985-86*	*1986-87*
Pasture harvested —		
Hay	47 956	45 116
Seed	1 473	1 422
Green feed or silage	8 257	8 700

The area planted to cereal grains consists mainly of barley, oats and wheat. Triticale, used principally for the feeding of poultry, continues to be a significant cereal grain crop in terms of area. The major grain growing areas are in the north of the State, centred around the Tamar Valley. The north-western regions continue to have the largest areas devoted to sown pastures. This predominance of the north-west can be related to the high proportion of the State's dairy cattle which is concentrated there. The principal green feed crops are oats and turnips, but other crops used for green feed include rape, chou moellier, barley, millet and wheat.

12.5 AREA OF SELECTED PRINCIPAL CROPS, TASMANIA, 1986-87 (hectares)

Crops	*Area*
Cereals for grain	19 208
Legumes mainly for grain	1 962
Hay	1 358
Orchard fruit	2 843
Berry and small fruit	223
Oil poppies	3 109
Hops	854
Vegetables	16 680

Artificial Fertiliser

In 1986–87 artificial fertiliser was applied to 446 614 hectares of agricultural land, 391 603 hectares of which were pasture. Of the 2 338 hectares of wheat sown in Tasmania 1 357 or 58 per cent were artifically fertilised. There were 100 813 tonnes of artificial fertiliser used of which 64 per cent was superphosphate.

12.6 ARTIFICIAL FERTILISER USED, TASMANIA, 1986–87

	Pastures	*Wheat*	*Other crops*	*Total*
Area fertilised (hectares)	391 603	1 357	53 654	446 614
Fertiliser used (tonnes) —				
Superphosphate	54 334	200	9 869	64 403
Straight nitrogenous types	998	22	1 203	2 250
Other artificial fertilisers	20 241	111	13 806	34 158

Oil poppies were initially grown on the mid-north-west coast; more recently they have been grown in other northern areas of the State, although adverse weather conditions, particularly excessive rain, have proved to be a problem in some areas. 1979–80 saw a sudden contraction in the area of poppies planted due to the closure of the United States market to the Tasmanian product. Subsequent negotiations reopened this market, thus ensuring the industry's survival.

12.2 LIVESTOCK

Numbers of sheep and lambs, meat cattle and pigs in Tasmania increased over the last year whilst the number of dairy cattle decreased. The number of goats and deer also showed a large increase.

12.7 LIVESTOCK NUMBERS, TASMANIA ('000)

Livestock	*1986*	*1987*
Sheep and lambs	4 822.5	4 954.0
Meat cattle	368.6	395.3
Milk cattle	140.5	139.5
Pigs	42.1	46.1
Goats	9.6	14.5
Deer	3.3	5.4
Bees (hives)	13.5	13.3

12.2.1 Sheep

The predominant breed of sheep in Tasmania is the Polwarth, accounting for 38 per cent of sheep numbers. The Polwarth is particularly suited to cool, moist areas or to sparse grazing. This makes it particularly suitable to Tasmanian conditions where sheep farming suffers from the climatic limitations of summers too dry and winters too cold for the adequate growth of pasture throughout the year.

Merino numbers have been gradually increasing in recent years, their finer wool attracting growers seeking to sell to the lucrative Japanese markets.

12.8 SHEEP NUMBERS TASMANIA, 1986 ('000)

Breed	*Rams, 1 year and over*	*Other sheep and lambs*	*Total*
Border Leicester	2.0	70.5	72.5
Cormo	1.7	133.1	134.8
Corriedale	3.3	429.0	432.2
Dorset Horn	1.3	27.2	28.5
Merino	12.1	674.3	686.3
Poll Dorset	5.6	76.4	81.9
Polwarth	15.0	1 891.9	1 907.0
Romney-Marsh	1.0	49.6	50.6
Southdown	2.6	39.1	41.7
Suffolk	3.1	42.9	46.0
Other Breeds	1.4	82.0	83.4
Merino comebacks	3.9	926.8	930.7
Merino Crossbreds	0.4	214.4	214.8
Other Crossbreds	0.5	372.2	372.7
Total	53.9	5 029.3	5 083.2

12.2.2 Cattle

The main breeds of cattle in Tasmania for beef production are the Hereford, the Aberdeen Angus, Shorthorn, Murray Greys and the Devon. In recent years new breeds such as the Charolais, Santa Gertrudis, Simmental and the Main Ainjou

have been introduced by farmers keen to utilise the advantages offered by crossbreeding. This development is in contrast to the situation which existed previously, when beef production was not a great priority and beef cattle were generally culled from dairy herds. Even today, only about 10 per cent of beef producing properties rely upon beef as a sole source of income. Stocking rates vary greatly, ranging from one beast to 16 hectares on undeveloped country, to two and a half beasts to a hectare on improved pasture. The majority of Tasmanian beef cattle is run on improved pasture.

The main dairy breeds in Tasmania are Holstein–Friesian and Jersey. Other breeds are the Illawarra, Ayrshire and Guernsey. There has been a general decline in the number of dairy cattle and dairies over the last few years.

12.9 CATTLE NUMBERS, TASMANIA, 1987 ('000)

Breed	*Bulls 1 year and over*	*Other cattle and calves*	*Total*
Straight breeds —			
Angus	2.0	84.5	86.4
Charolais	0.1	2.6	2.7
Poll Devon	0.1	3.0	3.1
Holstein–Friesian	0.9	106.8	107.7
Poll Hereford	4.0	121.1	125.1
Jersey	0.4	14.1	14.5
Murray Grey	0.3	7.1	7.4
Red Poll	0.1	1.7	1.8
Poll Shorthorn	0.5	11.5	12.0
Simmental	0.1	1.4	1.5
South Devon	0.1	2.4	2.5
Other	0.2	5.5	5.7
Cross breeds —			
British/British	0.3	87.1	87.4
European/Other	0.1	10.0	10.1
Beef/Dairy	0.1	57.7	57.8
Other	0.1	8.7	8.7
Total	9.4	525.0	534.4

The distribution of the State's beef cattle is subject to considerable variation, with some 37 per cent in the north-west, 44 per cent in the remaining northern areas and only 19 per cent of the total number in the south.

12.10 CATTLE DISTRIBUTION, TASMANIA, 1987 ('000)

Region	*Dairy cattle*	*Beef cattle*	*Total*
South	7.7	74.3	80.7
North	48.4	175.5	223.9
North-west	84.6	145.6	230.2
Total	139.5	395.3	534.8

12.2.3 Pigs, Goats and Deer

Over the last 10 years the number of agricultural establishments with pig herds has fallen dramatically, although this decrease has levelled out over the last couple of years. In the last year the number of breeding sows and the number of pigs slaughtered have increased.

12.11 PIGS, TASMANIA

	1986	*1987*
Number of establishments	225	220
Number of ('000) —		
Boars	0.4	0.4
Breeding sows and gilts	6.0	6.3
Other pigs (incl. suckers, weaners, and growers)	35.6	39.4
Total pigs	42.1	46.1
Pigs slaughtered	84.4	89.6

Tasmania's goat population has grown steadily, if not spectacularly, and currently numbers 14 500. Goat products appear to be finding wider public acceptance, with some establishments marketing goat's milk commercially in Tasmania. Of particular note is the demand for fibre goats by New Zealand producers. During 1985–86 some 1 499 were sent to New Zealand from Tasmania.

Many graziers are incorporating cashmere goats on their properties and exporting the fibre to manufacturers in Scotland, the United States and Italy. In september 1987, the average price for fine white cashmere was $120 a kilogram.

Commercial deer farming, while remaining very much in its infancy, continues to show potential for further development. There are presently 18 licensed farmers in the State with other licence applications under consideration. Many farmers see in deer a profitable sideline, as they can be grazed on the lush pastures which are maintained for dairy production. Deer prices have been kept high as the demand for breeding stock has exceeded supply.

12.12 DEER, TASMANIA

Year	*Number*
1982	1 000
1983	1 700
1984	2 100
1985	2 200
1986	3 300
1987	5 400

The market for venison has also grown at a steady rate and Tasmanian deer meat is gradually replacing the imported product on restaurant tables.

12.3 LIVESTOCK PRODUCTS

The total value of livestock slaughtered and livestock products in Tasmania during 1986–87 was $291.9 million of which 37 per cent was for wool production, 26 per cent was for cattle and calves slaughtered and 22 per cent was for dairy products. There was an increase of 20 per cent in the total gross value, from $242.4 million in 1985–86 to $291.9 million in 1986–87.

12.13 GROSS VALUE OF LIVESTOCK PRODUCTS, TASMANIA ($ million)

Product	*1985–86*	*1986–87*
Livestock slaughtered —		
Cattle and calves	58.9	75.7
Sheep and lambs	18.1	17.0
Pigs	8.5	9.1
Poultry	9.5	9.8
Wool	83.7	108.7
Dairy products	56.9	64.0
Eggs	5.9	6.1
Honey and beeswax	0.8	1.6
Total	242.4	291.9

Tasmanian production of livestock commodities has been subject to considerable variation in output, due to combinations of various factors, including economic, marketing and climatic conditions.

12.14 LIVESTOCK PRODUCTION, TASMANIA, YEAR ENDED 30 JUNE

Product	*Unit*	*1986*	*1987*
Meat —			
Beef and veal	tonnes	31 757	39 159
Mutton and lamb	"	19 680	20 380
Pigmeat	"	4 665	5 491
Poultry	"	5 087	5 319
Wool —			
Sheep and lambs shorn	'000	5 270	5 234
Shorn wool	tonnes	22 989	24 147
Other wool	"	2 005	2 194
Total wool	"	24 994	26 341
Whole milk	million litres	351	352
Eggs	'000 dozen	3 396	3 551
Honey	tonnes	706	905

12.3.1 Meat

The beef and veal industry provides a good example of the operation of these sort of factors in relation to livestock commodity production. Tasmania's principal overseas beef markets are American, with some exports of special and prime beef to Japan. Tasmanian exports have been indirectly affected by internal legislative measures taken to protect the US economy. Legislative intervention by Congress, in the form of an export-enhancement program, was designed to reduce US agricultural surpluses of wheat, beef and dairy products. In connection with this effort, restrictions were placed on imports and attempts made to stifle production. Thus exports of Tasmanian beef were dealt a double blow; apart from the limitations placed on imports, the US administration offered a subsidy to encourage the slaughter of dairy herds. The resulting beef stocks were sold as hamburger beef, which has been the principal export market in America for Australian beef.

Main Shearing, Lambing and Slaughtering Periods, Tasmania

Activity	*Period*
Shearing	September to December
Lambing —	
Spring	August to October
Autumn and winter	March to July
Slaughtering for export —	
Lambs	November to March

Interstate lamb and mutton exports from Tasmania are generally subject to highly variable mainland markets. Stocks of lamb are often sought from Tasmania by mainland supermarket chains when conditions have resulted in insufficient quantities being produced locally.

The value of livestock slaughtered in 1986–87 showed a large increase over the previous year. This was mainly due to the large increase in the value of cattle and calves slaughtered; more slaughterings and an increase in value per animal, from $382.99 to $414.95.

12.15 GROSS VALUE OF LIVESTOCK SLAUGHTERED, TASMANIA ($ million)

Livestock	*1985–86*	*1986–87*
Cattle and calves	58.9	75.7
Sheep and lambs	18.1	17.0
Pigs	8.5	9.1
Poultry	9.5	9.8
Total	95.1	111.5

12.3.2 Wool

There has been a large increase in the unit price of wool produced over the last twelve months. The average unit price for shorn wool in 1986–87 was $4.26 a kilogram compared with of $3.48 a kilogram for 1985–86.

12.16 WOOL PRODUCTION AND VALUE, TASMANIA

Season	*Quantity (tonnes)*	*Gross value ($ million)*
1980–81	20 049	50.8
1982–83	21 680	58.9
1983–84	21 887	64.7
1984–85	21 935	73.3
1985–86	24 994	83.7
1986–87	26 341	108.7

12.3.3 Dairy Products

Dairy production in 1986–87 has been valued at some $64 million. The demand from local producers of cheese, confectionery and processed milk products has continued to expand.

12.17 MILK UTILISATION, TASMANIA

Year	*Whole milk intake by factories (million litres)*	*Market milk sold (million litres)*
1980–81	288	43
1981–82	295	44
1982–83	323	45
1983–84	339	43
1984–85	r 347	44
1985–86	351	44
1986–87	352	45

Year	*Butter (tonnes)*	*Cheese (tonnes)*
1980–81	n.p.	14 147
1981–82	3 964	15 167
1982–83	5 768	14 100
1983–84	6 191	14 080
1984–85	7 690	12 567
1985–86	6 180	16 695
1986–87	5 839	17 183

Source: Australian Dairy Corporation.

12.3.4 Honey

Honey bees are not native to Tasmania but were first introduced during the 1830s. They flourished, with copious amounts of honey being produced by many swarms, and within a few years bees could be found throughout many parts of the State.

Although the clearing of land made some inroads into honey production, as time went by the development of clover based pastures and the introduction of the blackberry, diverted honey production from predominantly forest based flora to a mixture of forest and ground flora.

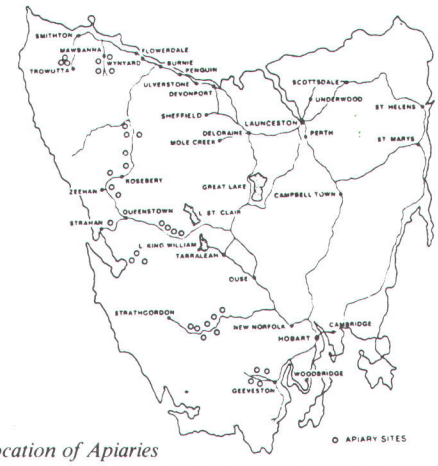
When, early this century, roads were opening up the west coast, beekeepers began to exploit the leatherwood tree to produce leatherwood honey, unique to Tasmania, and today export to many parts of the world.

Approximately 75 per cent of Tasmania's honey production is from leatherwood with blackberry and clover making up the bulk of the remainder. Tasmania's Blue Gum (*Eucalyptus globulus*) provides a honey flow every other year for Southern beekeepers.

12.18 HONEY PRODUCTION, TASMANIA, 1986–87

Variety	*Tonnes*
Leatherwood	631
Other	210
Total	841

Most of the State's commercial beekeepers are located in the north of the State where conditions are most favourable. Every summer Tasmania's beekeepers take their 13 000 hives to the leatherwood blossom on the West Coast where sites containing up to 50 hives are set up in clearings by the roads in the area.



Location of Apiaries
Source: The Tasmanian Beekeepers' Association

Elsewhere, the extensive pastures of the north-east and north-west coasts are rich in a variety of clovers including the well-known 'Wild White' (*Trifolium repens*), and the less common 'Red' clover. Both produce a honey of a very high quality, ranging in colour from water white to pale amber, with a mild, sweet flavour which candies with an extra fine grain. Known simply as 'clover' honey, it has found a ready market in Japan.

In 1986–87 the average productive hive produced about 76 kilograms of honey at a gross value of just under $1.5 million.

12.4 CROPS

The gross value of all crops produced in the State represents about one third of the total value of Tasmanian agricultural production. For the first time potatoes were the largest contributor to the total value of crops. Previously apple production had been the largest contributor.

12.19 VALUE OF PRINCIPAL CROPS, TASMANIA ($ million)

Crop	*1985-86*	*1986-87*
Cereals for grain	6.8	5.8
Legumes	1.1	0.8
Pasture for hay	23.6	24.9
Apples	34.0	28.0
Carrots	2.1	2.7
Peas for processing	5.8	5.0
Onions	10.7	10.1
Potatoes	27.7	33.8
Total	150.2	144.9

12.4.1 Vegetables

In terms of value, growing vegetables for human consumption is the most important cropping activity undertaken in Tasmania. In the first half of the 1980s this activity has typically accounted for 40 to 44 per cent of the total gross value of all crops produced and 13 to 15 per cent of total gross value of agriculture.

This cash cropping activity is principally under contract for vegetable processing — major processors being located at Smithton, Ulverstone, Devonport and Scottsdale. Only a small part of production is for the fresh market.

Vegetable growing is concentrated along a predominantly coastal strip stretching from the local government area of Westbury to Circular Head. The vegetable growing area is characterised by deep friable krasnozem soil types, relatively high (900 to 1400mm) and reliable rainfall and good distribution of streams and rivers for irrigation.

Three vegetables predominate — green peas for processing, potatoes and French and runner beans. Together these crops account for around 85 per cent of the total area planted to vegetables for human consumption. The other main vegetable crops, into which farmers have diversified over the period, are onions, broad beans, carrots, cauliflowers, Brussels sprouts and cabbages. Much of these vegetable crops are also grown for processing.

12.20 VEGETABLE PRODUCTION, TASMANIA (tonnes)

Crop	*1985-86*	*1986-87*
Potatoes	193 019	223 443
Peas for processing	27 279	22 676
Onions	31 411	33 315
Carrots	13 278	15 123
Beans, French and runner	9 449	6 368

12.4.2 Fruit

Tasmania's once buoyant apple industry has declined significantly, particularly since the peak experienced in the mid-sixties. In terms of orchard tree fruit the only other crops of any significance are pears and apricots. However, when compared with apples they have remained only minor activities. Both have declined significantly over

Planting and Harvesting Periods, Tasmania

Crop	*Planting*	*Harvesting*	*Crop*	*Harvesting*
Cereals —			Fruit —	
Barley	Sept. to Nov.	Feb. to Mar.	Apples	Feb. to May
Oats	Mar. to Oct.	Nov. to Mar.	Apricots	Jan. to Feb.
Wheat	May to Sept.	Jan. to Feb.	Peaches	Jan. to Feb.
Vegetables —			Pears	Feb. to April
Beans, French			Plums	Jan. to Feb.
and runner	Sept. to Jan.	Feb. to April	Raspberries	Dec. to Jan.
Peas, green	June to Dec.	Nov. to Feb.	Currants	Jan. to Feb.
Potatoes —			Goosberries	Nov. to Dec.
Early	May to July	Oct. to Nov.	Strawberries	Nov. to Jan.
Late	Aug. to Nov.	Feb. to June		
Tomatoes	Oct. to Nov.	Feb. to April		
Other crops —				
Hops	..	Feb. to Mar.		
Field peas	July to Sept.	Jan. to Mar.		
Oil Poppies	Aug. to Oct.	Jan. to Feb.		

the period 1964–65 to 1985–86. The number of pear trees dropped from approximately 250 000 to just over 32 000. The reason for the decline of pear production was the same as for the apple industry; both were orientated to the European export market. The number of apricot trees has fallen from around 70 000 to only 27 000. This decline is principally attributable to the closure in Tasmania of Henry Jones IXL which was the principal market for the State's apricot crop.

12.21 FRUIT PRODUCTION, TASMANIA (tonnes)

Variety	*1985–86*	*1986–87*
Orchard fruit —		
Apples	56 548	48 088
Pears	1 200	972
Apricots	213	151
Cherries	18	19
Peaches	11	9
Plums & Prunes	9	8
Nectarines	22	19
Berry & small fruit —		
Blackcurrants	640	630
Raspberries	136	153
Grapes	119	148
Strawberries	82	89
Loganberries	22	12
Gooseberries	–	1

Fruit growing is nevertheless an economically important activity within the State. Over recent years the production of fruit has provided about 23 per cent of the gross value of the State's crops. A variety of berry and small fruit crops, including grapes, have been established in recent years and have made considerable progress. American markets have been established by growers for blueberries, and raspberry production is proving successful. Tasmanian berries are also made into jams, including specialty liqueur jams.

Wine Grapes

Tasmania has become a wine producer of genuine world standing. The cool climate and long hours of sunlight enabling the grapes to ripen over a long season and the small scale of the vineyards, have resulted in a high quality product. Tasmania is one of the few wine making areas in Australia in the enviable position of having demand for its product outstripping supply.

In the 1986–87 season 148 tonnes of wine grapes were produced, 29 tonnes more than that harvested in 1985–86.

The 1985–86 season was the first year under the Tasmanian Appellation of Origin Scheme. This is a wine certification system which provides a guarantee of origin to those using the system.

12.22 GRAPE PRODUCTION, TASMANIA (tonnes)

Variety	*1985–86*	*1986–87*
Red grapes —		
Cabernet Sauvignon	35	31
Pinot Noir	14	17
Total	48	48
White grapes —		
Chardonnay	37	44
Rhine Riesling	27	46
Traminer	4	9
Other	3	2
Total	70	100
Total all grapes	119	148

By legislation it prevents producers calling a wine Tasmanian unless the wine has been made from grapes grown in Tasmania, a move which growers say will ensure the future of the industry.

For the 1986–87 season Tasmania had 43 hectares of bearing grapes and 53 hectares of non-bearing. An increased interest in Tasmanian wine by overseas companies has led to an expansion of grape growing particularly of Pinot Noir and Chardonnay which are used for producing sparkling wines.

12.23 AREA OF GRAPE GROWING, TASMANIA, 1986–87 (hectares)

Variety	*Bearing*	*Non-bearing*
Red grapes —		
Cabernet Sauvignon	15	9
Pinot Noir	5	20
Other	–	1
Total	20	30
White grapes —		
Chardonnay	8	16
Rhine Riesling	10	5
Traminer	4	–
Other	2	2
Total	23	23
Total all grapes	43	53

12.4.3 Essential Oil Crops

Essential oils had their beginning as a crop in Tasmania in the 1920s. At that time a few grams of true lavender (*Lavandula angustifolia*) were imported by the Denny family at Lilydale. These seeds, followed by plant selection and oil evaluation, formed the basis of the present day enterprises still run by the Denny family.

Lavender was followed in the 1950s by peppermint, but the area of this crop did not expand appreciably until the late 1970s. Since

that time the increasing interest in alternative crops combined with the depression in prices of other agricultural products has seen a growth in the area and number of essential oil crops grown.

Peppermint and spearmint are both members of the family *Labiatae* which produce an essential oil, extracted by distillation, in small glands on the leaves, flowers and stems. The crop is perennial and is established by vegetative propagation of stolons.

Peppermint oil is used mainly as a flavouring component in a very wide range of products, including confectionery, pharmaceuticals and liqueurs. The major component which is immediately identified upon tasting is menthol. However, components such as menthone, menthyl acetate and menthofuran go to impart the balanced flavour which is characteristic of peppermint oil.

Tasmania is ideally situated climatically for the expansion of peppermint and other essential oil crops. Mild, warm days in summer with cool evenings, and a day length in excess of 15 hours are the necessary environmental conditions required for the production of high quality peppermint oil.

The industry in Tasmania is based on establishing and maintaining a sound reputation in the market place for a regular supply of consistent quality products. To achieve these objectives crops are sampled regularly through the growth cycle to aid harvest predictions by assessments of oil quality and yield.

Fennel, which belongs to the family *Umbelliferae*. is another plant under investigation for essential oil production. This plant, together with other members of this family, produce fruits which contain a high proportion of steam extractable aromatic oil. Fennel as a crop is treated as a short term perennial which is initially established from seed. This crop is complementary to peppermint as it matures at a different time and can therefore make more efficient use of harvesting and distillation equipment.

A number of other essential oil crops are at various stages of development including parsley, caraway, boronia, and blackcurrant bud.

12.5 SERVICES TO AGRICULTURE

12.5.1 Agricultural Quarantine

Agricultural quarantine is administered by government to protect all facets of agriculture and the environment with the aim of preventing the introduction or spread of pests and diseases. Legislation by the Commonwealth and the States provide the authority for any action taken.

In 1904 authorities from each State and the Commonwealth recommended the creation of a Federal Quarantine Service. In 1906 the States agreed to hand over quarantine administration of all overseas imports to the Commonwealth, and this led to the *Quarantine Act* of 1908. On 1 July 1909 the Federal Quarantine Service commenced operation.

Today, the Commonwealth retains this responsibility for overseas imports, and it discharges its responsibilities under Section 51 of the Constitution. The Department of Primary Industry delegates the operational aspects of plant and animal quarantine to the State Department of Agriculture and reimburses it for the costs involved.

The basis for Tasmanian commercial rural production is introduced livestock and plant material. State legislation restricts the entry of such goods and stock from interstate, appropriate to the pest and disease risk involved. Measures taken under the *Quarantine Act* function on a similar basis and are arrived at in consultation with the States. Commonwealth restrictions apply uniformly throughout Australia with provision made for specific State requirements.

Quarantine measures make it possible for industry to obtain the best available material from overseas with adequate safeguards appropriate to its pest and disease status. At times, this may involve extended periods before release, but such delays are preferable to costly controls and the loss of possible market opportunities.

12.5.2 Research and Development

On an annual basis approximately one third of the resources available to the Department of Agriculture is committed to programs of agricultural research and development. The principal aims of this research are to assist the development of new industries, to foster the adoption of improved agricultural technologies and to provide solutions to current agricultural problems. As such, the research is predominantly of an applied nature.

An example of the Department's research is the project of the Forthside Vegetable Research Station. At the end of 1987 a number of plants were being investigated for medicinal applications. These included foxglove, deadly nightshade, henbane, thorn apple, fenugreek, kangaroo apple, Madagascar periwinkle, medicinal parsnip, mountain tobacco, liquorice and artemisia. Other trials involved the development of an edible oil linseed, and the testing of new row covers for vegetable production.

Creative advisory projects, such as demonstrations of current lines of research, go to create a continuous process of information production, disseminated through the scientific media, the popular press, the Department's own publications unit and by personal contact with producers.

The Department has only limited physical and financial resources to conduct its research activities, and thus it is considered necessary to subject project proposals to a system of scrutiny and evaluation at all stages of development. This ensures a co-ordinated approach to research to guarantee the most effective use of available resources.

The Department operates six research farms throughout the State for extensive animal research. Funding for the Department's activities is provided mainly by the State Government, with some contribution from industry sources.

12.5.3 Veterinary Services, Department of Agriculture

The Animal Health Division of the Tasmanian Department of Agriculture supervises and maintains all Government veterinary services. It is administered by the Chief Veterinary Officer, and comprises two branches, the Veterinary Field Branch and the Veterinary Laboratory Branch, both headed by their respective chiefs assisted by senior Veterinary Officers in specialist and administrative roles.

The principal objectives of veterinary services relate to maintaining Tasmania's firmly established control of stock disease. They thus revolve around disease detection and prevention. In some instances specific policies have resulted in actual eradication. Examples are provided by bovine tuberculosis, bovine brucellosis and the sheep ked. Considerable progress has been made with the Hydatid Limitation Program and this disease could be the next to be eliminated.

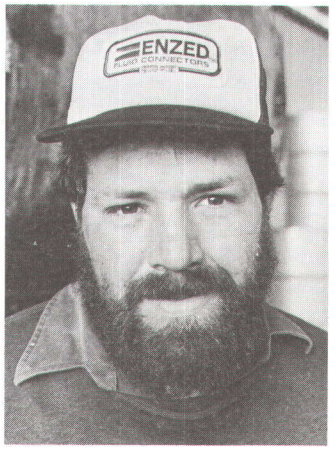
Another important task of the Veterinary Field Branch is the control of rural vermin. Where poisoning is necessary, the requisite chemical can be supplied and laid by Veterinary Field Branch officers.

These same officers also inspect livestock in saleyards, monitor sheep body lice in district flocks, examine offal in abattoirs for hydatid cysts, test dogs for hydatids, collect blood samples from animals being screened for disease free accreditation, maintain swill feeding surveillance and generally assist their supervising veterinary officer.

Backing up the Field Branch staff is the Veterinary Laboratory Branch at Mt Pleasant Laboratories, which carries out the pathological, chemical, seriological and bacteriological tests on material submitted by field and private veterinarians. The service offered is an efficient and substantial contribution to the high standard of animal disease control prevailing in Tasmania.

Rural Youth — Young Farmer of the Year Award

The annual Rural Youth — Young Farmer of the Year Award for 1987 was won by Robert Bayles of Cressy, by half a point from John Denison of Flowery Gully.



Robert Bayles, winner with 54.75 points Photo: *Mercury*

The competition was held at Bishopsbourne and tested the skills of the competitors in a wide variety of all agricultural and related activities, ranging from ploughing, through seed identification and meat judging, to public speaking.



John Denison, runner up with 54.25 points Photo: *Mercury*

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Chapter 13

MINING

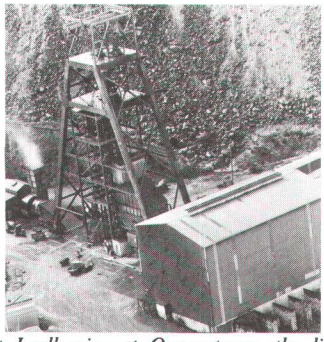
Mining in Tasmania began on the Tasman Peninsula with 61 tonnes of coal produced by convicts from Port Arthur. The mine operated for 10 years before it was closed down when better quality coal was discovered elsewhere. In 1849 gold was found near Lefroy and three years later at Mangana near Fingal.

Tin oxide was first discovered near Mt Bischoff in 1871, silver-lead ore in the Zeehan–Dundas area in 1882, and the discovery of the *Iron Blow* ore outcrop in 1883 led to the opening of the Mt Lyell copper field. These and later discoveries led to the establishment of Tasmania's mining industry which has had a significant impact on the State's development and economy.

Recently however, world prices for mineral producers have been generally depressed and unstable. Although partly offset in Australia by currency devaluation, international competitiveness has continued to be of concern to the local industry. Major features of the year were the production proving of a major new mine and several smaller ventures, although 1986 also saw the demise of several mines and of oil and gas exploratory activity. Both large-scale retrenchments and industrial disputes were at lower levels than in 1985.

Aberfoyle Ltd attained access to its rich Hellyer lode near Waratah with the completion of a 1.3 km adit (horizontal tunnel) in May 1986. Zinc, silver and lead were the main target metals with copper and gold also commercially recoverable. Scheduled to be fully operational by early 1989, almost 190 people will be employed in the new mine and concentration mill, with about 200 jobs in the construction phase. Interim production involves the output of about 250 000 tonnes of ore per annum at a converted mill at the company's defunct Cleveland mine site at Luina. Full ore production of 1 million tonnes per annum will allow an estimated 15 year lifespan. As such the Hellyer mine represents one of the most significant industrial developments for the State in recent years.

The Mt Lyell copper mine at Queenstown, long a bastion of west coast mining, but now reaching the end of its productive life, received



The Mt Lyell mine at Queenstown, the life-blood of Queenstown and Gormanston for the past century, is due to close in 1994. Photo: *Mercury*

reprieves from two sources during 1986. New export markets were obtained in Japan for pyrite by-products, previously discarded as tailings, at a level of 85 000 tonnes per annum. Secondly, a State government assistance package including a deferred interest loan of $8 million, and deferments on royalty payments and payroll tax, resulted in an agreement to defer the closure of the mine for five years, until 1994. In a related development the State government announced an allocation of $2 million to develop a new tourist mine complex at Mt Lyell.

The EZ Company's Rosebery silver, lead and zinc mine and associated smelter at Risdon near Hobart maintained production levels during 1986 despite previous workforce cutbacks. Major

investment programs included the first phase of $100 million modernisation of the Risdon works and equipment to improve gold recovery levels at Rosebery. Sample processing of ores from the Que River and Hellyer mines of Aberfoyle Ltd was followed by an agreement to purchase concentrates when the latter expands its own milling capabilities.

A reduction in crude oil prices early in 1986 sealed the fate of the oil and gas exploration in Bass Strait which had been upscaled in 1985 after a decade of low activity. Two wells drilled in early 1986 were abandoned as dry holes. Drillstem tests on wells commenced in 1985, and on which drilling was suspended after producing promising oil and gas shows, proved inconclusive. Although the current world climate is not encouraging, a wealth of geological information has been obtained which will be useful in the next round of drilling.

Two west coast mines closed in 1986. Aberfoyle Ltd's Cleveland tin mine at Luina exhausted its viable reserves after having produced 23 000 tonnes of the metal from 5.6 million tonnes of ore. Its 18 year operational life had originally been predicted to be 12 years. The Cleveland processing mill has been converted to treat ore from the company's nearby Hellyer mine. The closure of the EZ Company Hercules mine at Williamsford, while much smaller than the neighbouring Rosebery operation, resulted in the loss of 12 jobs. Part of its prominent 6 kilometre aerial ropeway, which carried buckets of ore from the mine to the Rosebery mill, is to be retained as an exhibit at Rosebery High School.

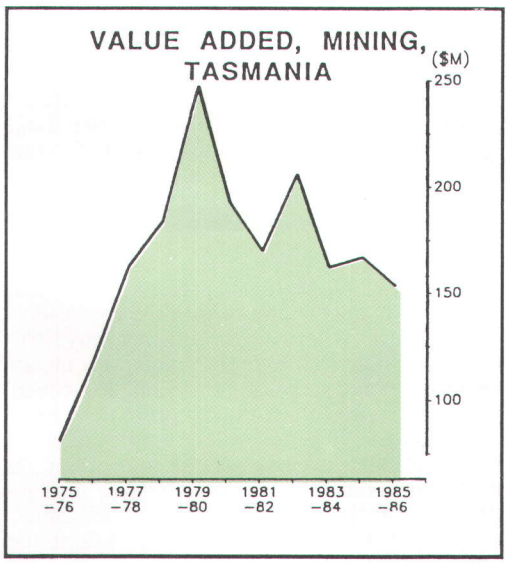
13.1 NEW LEASES AND LICENCES ISSUED 1985–86, TASMANIA

Leases and licences	*Number*	*Area (ha)*
Coal (peat)	6	2008
Gold	2	9
Minerals	3	170
Sand and gravel	12	129
Stone	18	589
Tin	4	180
Water	1	3
Osmiridium	1	1
Total	47	3089

New mining ventures for the State in 1986 and 1987 were small but nonetheless encouraging. Savage River, already the site of an open cut iron ore mine, is the location of two new prospects. Firstly, a $3.5 million mine will provide high grade silica flour for refinement at Burnie. Markets for the fine-processed product include domestic use as a high grade filler, an abrasive and a glaze, and as an export product, initially to Japan, for lead crystal and optical glass production. Secondly, a magnesite deposit just south of Savage River was proved by exploratory drilling at about 200 million tonnes. Magnesite is a source of manganese used in high strength steel alloys; it also has applications in ceramics manufacture and some soil fertilisers. Advancements in extraction technology have allowed new industries based on the reprocessing of tailings from earlier mines, principally at Zeehan for zinc and at Beaconsfield and Lefroy for gold. A new open cut gold mine near Denison in the north east, also an area prospected historically, commenced production with a workforce of 14 people.

13.1 MINERAL PRODUCTION

Tasmanian mining, in common with other sectors of the economy, has experienced fluctuating fortunes as a result of world market trends. The value of minerals produced from Tasmanian mines in 1985–86 was $317 million, an increase of 8.6 per cent from 1984–85. The industry's contribution to the State economy (value added) declined by 8.0 per cent from 1984–85 to 1985–86 to a total of $153 million.



Employment in the Tasmanian mining industry has continued to decline; average employment (including working proprietors) was 3 151 persons in 1985–86 compared with 3 289 in 1984–85.

At 30 June 1986 there were 49 mining establishments operating, a decrease of 5 on the number of the previous June.

13.1.1 Metallic Minerals

Metallic mineral production in Tasmania has fluctuated over recent years. In 1983–84 the figures showed a significant decline in the production of most minerals compared with previous years. However, by 1985–86 production of most metallic minerals had reversed. The most significant increases were in the production of lead-copper concentrate and zinc concentrate.

13.2 METALLIC MINERAL PRODUCTION, TASMANIA (tonnes)

Mineral	*1984–85*	*1985–86*
Copper concentrate	85 524	85 409
Copper-tin concentrate	1 053	1 065
Iron ore pellets	2 258 014	2 240 743
Lead concentrate	37 076	34 714
Lead-copper concentrate	28 200	38 209
Molybdenum concentrate	23	23
Tin concentrate	6 824	8 243
Tungsten concentrate	1 961	1 941
Zinc concentrate	165 392	173 860
Value of Metallic Minerals Produced (a) ($'000)		
Total metallic minerals	247 661	266 278

(*a*) Selling value at the mine.

13.1.2 Fuel Minerals (Coal)

Coal is the only fuel mineral mined in Tasmania. There are known deposits of coal throughout much of Tasmania but the most important are those located in the north-east in the Fingal and Mt Nicholas areas.

With recent increased interest in coal deposits, considerable exploration activity in the State has established the details of other mineable reserves in the Fingal Valley, as well as reserves of sub-surface black and brown coal.

The overall poor quality of Tasmanian coal limits its use to local industry while mining difficulties adversely affect its production cost in relation to possible imports. Reduction in oil prices has halted the reconversion process for the present.

13.3 PRODUCTION OF COAL, TASMANIA

Year	*Production (tonnes)*	*Value (a) ($'000)*
1983–84	275 716	11 357
1984–85	296 933	12 102
1985–86	329 734	14 775

(*a*) Selling value at the mine.

13.1.3 Construction Materials

The production of construction materials is the section of the minerals industry which has the greatest personal impact on the people of the State. Buildings, roads and most services depend on the production of construction materials while control of costs depends on their being produced locally.

13.4 PRODUCTION OF CONSTRUCTION MATERIALS *(a)*, TASMANIA (tonnes)

Mineral	*1984–85*	*1985–86*
Dimension stone	1 061	4 210
Crushed and broken stone	2 223 835	2 002 414
Gravel *(b)*	1 020 407	1 286 618
Sand	563 546	586 579
Other	83 976	44 527
Value of Construction Materials Produced (c) ($'000)		
Total construction materials	24 637	27 409

(*a*) Excludes quantities quarried by Government or semi-government authorities (e.g. HEC, Department of Main Roads, etc.) but includes quantities quarried by local government authorities for road material.
(*b*) Mainly decomposed rock for road material.
(*c*) Selling value at the mine.

13.1.4 Non-metallic (excluding fuel) Minerals

The quarrying of limestone for cement production is the earliest recorded mining activity for non-metallic minerals other than coal in the State and is currently at record levels.

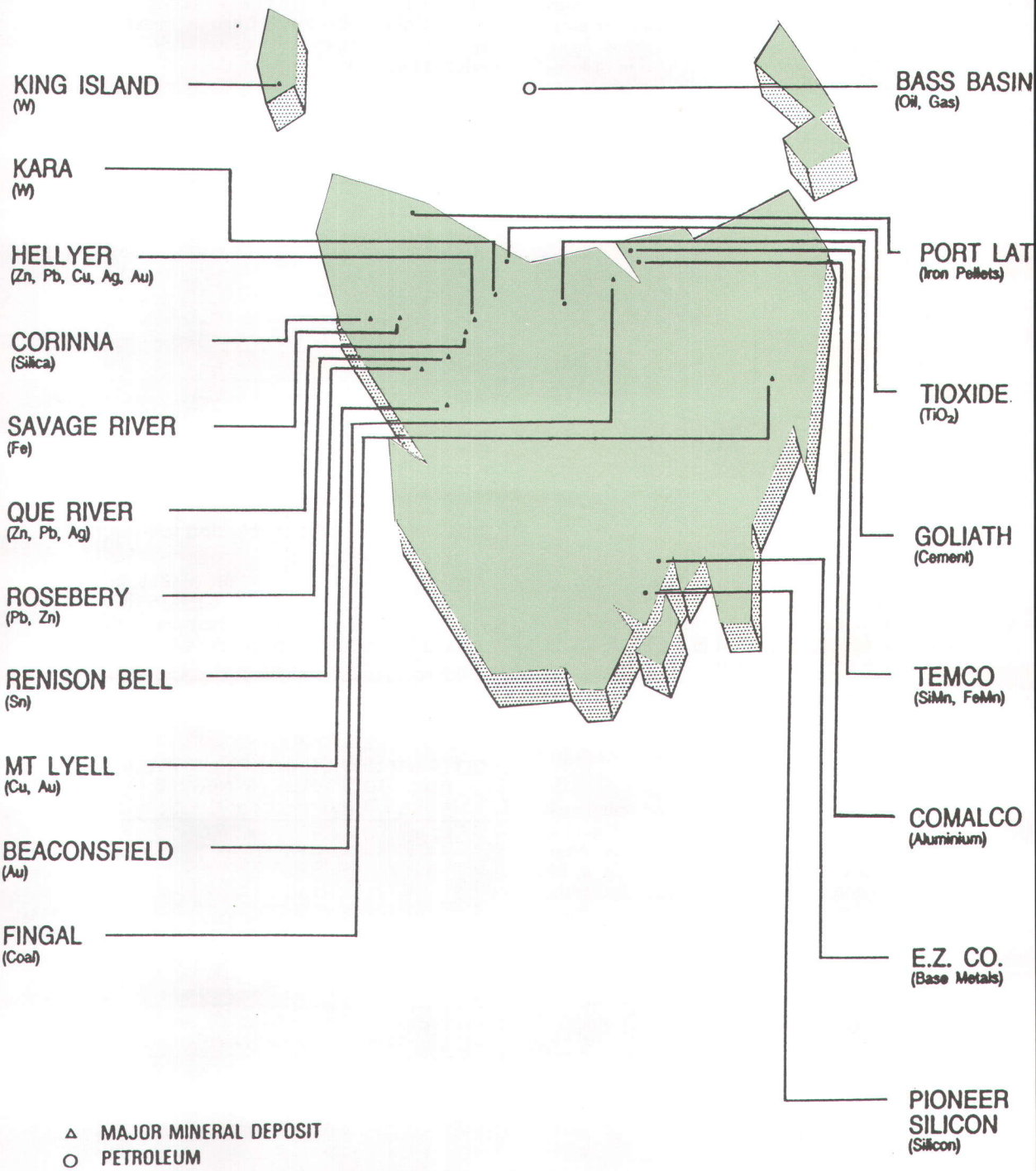
Silica occurs in a number of locations in Tasmania, both as high quality quartzite and as deposits of silica sand.

13.5 PRODUCTION OF NON-METALLIC (EXCLUDING FUEL) MINERALS, TASMANIA (tonnes)

Mineral	*1984–85*	*1985–86*
Clays and shale —		
Brick	n.p.	n.p.
Other	n.p.	n.p.
Dolomite	14 766	15 380
Limestone *(a)*	802 412	891 789
Peat moss	150	180
Pebbles	n.p.	n.p.
Silica	37 488	46 366
Value of Non-metallic (excluding Fuel) Minerals Produced (b) ($'000)		
Total non-metallic minerals	7 565	8 659

(*a*) Excludes quantities used directly as a building or road material.
(*b*) Selling value at the mine.

LOCATIONS OF TASMANIAN MINERAL ACTIVIT



Production of silica for Pioneer Silicon Industries comes from the north-west area of the State and may eventually come from the Glovers Bluff region in the South West Conservation Area. Silica for the Temco silico-manganese plant comes from Beaconsfield, and the identification of high-grade silica sand in the Savage River–Corinna region has led to the establishment of a new industry on the West Coast by Monier Limited, producing a high grade basic supply source for the optical glass industry.

13.2 MINERAL PROCESSING INDUSTRIES

Tasmania's ability to produce low-cost power from hydro-electric development has led to the establishment of metallurgical treatment plants to treat both local and imported ores.

13.6 MINING OPERATIONS, TASMANIA

Operation	*Average annual employment (including working proprietors)*	*Wages and salaries*	*Turnover*
	No.	*$'000*	*$'000*
1983–84	3 604	82 727	353 855
1984–85	3 289	88 840	383 074
1985–86 —			
Metallic *(a)*	2 755	83 124	340 369
Coal	n.p.	n.p.	n.p.
Construction materials	156	3 170	24 322
Total	3 151	92 345	389 541

(*a*) Small tin producers with a sales value of under $20 000 have not been included.

Major mining companies operating within the State include:

- *Comalco Aluminium (Bell Bay) Ltd* is an aluminium smelter and refinery producing: rolling block, extrusion billet, foundry ingot, bus bar (horizontally cast), sows, T-ingot and granules. Comalco Aluminium Powder, an associated company, produces aluminium powder, aluminium paste and high alloy briquettes.
- *Electrolytic Zinc Company of A/Asia Ltd* produces zinc and zinc alloys as well as cadmium, sulphuric acid, superphosphate and amonium sulphate at its Risdon factory. Silver-lead-zinc-copper-gold ore mined at the company's mines at Rosebery as well as concentrates from Aberfoyle Co.'s Que River and Hellyer mines are processed by EZ at Risdon.
- *Renison Goldfields Consolidated Limited (Mt Lyell)* produces copper in the form of concentrates from ore largely mined underground and hauled to the surface by a major diesel trucking operation.
- *Renison Goldfields Consolidated Limited (Renison)* is the largest tin mine in Australia and the world's largest producer of tin metal in concentrates from a hard rock underground mining operation.
- *Savage River Mines* produces high-grade iron ore pellets which are sold to Japanese steel mills.

Cleveland Tin Mine Closed

After 18 years production, the Cleveland tin mine at Luina closed down in May 1986, when falling world tin prices made the depleted ore reserves and declining grade no longer a viable operation.

At its peak in the mid 1970s, the Cleveland mine had about 80 underground workers out of a total work force of over 300 people. When it closed it had only 60.

The mine and its treatment plant were commissioned in 1968 with proven ore reserves for a production life of 12 years. Subsequent discoveries of additional reserves maintained production for an extra six years. In that period the mine has produced 5.6 million tonnes of ore for about 23 000 tonnes of tin metal.

13.3 EXPLORATION

The continuous attrition of ore bodies inherent in mining activity means that ongoing exploration is necessary, not only to establish new mines but also to maintain a skilled labour force and to extend the productive life of capital equipment. Recent events, including the opening of Hellyer mine with its forecast 20 year life on the one hand and the closure of the Cleveland and Hercules mines on the other, illustrate the dynamism of the industry.

Early exploration was undertaken by generations of prospectors who roamed the rugged terrain in western and north-eastern Tasmania for over a century to discover the rich rewards of Mt Bischoff (tin), Savage River (iron), Zeehan (silver/lead/zinc), Mt Lyell (copper/gold/silver), Renison Bell (tin), Magnet (silver/lead/zinc), Rosebery (zinc/lead/, silver/copper), Hercules (zinc/lead/silver), Tullah (silver/lead/zinc) and Cleveland (tin/ copper) in western Tasmania,

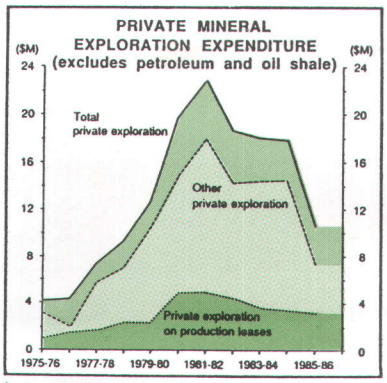
and Storys Creek/ Aberfoyle (tin/tungsten), Blue Tier (tin) and Briseis (tin) in eastern Tasmania.

Although the more mineralised regions of the State, such as the Queenstown-Zeehan-Rosebery area in western Tasmania, have been extensively explored on the surface, much of Tasmania remains relatively unexplored and the search for 'blind' mineral deposits is still in its infancy.

Mineral exploration today is aimed primarily at discovering 'blind' ore bodies that are concealed either by superficial overburden or overlying rocks that have not been removed by erosion.

Modern mineral exploration programs demand a combination of many geological, geophysical and geochemical techniques and applications and may take five, ten or even fifteen years to come to fruition. Only a very small proportion of mineral exploration programs are successful.

Expenditure on private mineral exploration steadily increased for a number of years and peaked in 1981–82. Since that time exploration funding in the State has declined substantially.



Major exploration interests are centred on four main areas.

- The Mt Read Volcanics region from Elliott Bay to Que River, where the prospects are excitingly high for more zinc/lead/copper/gold/silver deposits.
- The Mt Bischoff-Savage River-Pieman River-Zeehan region, where prospects are high for tin, tungsten, lead, zinc, silver, gold, nickel, osmiridium, iron, copper, asbestos and chromium.
- The Hampshire-Sheffield region, where the attractions are tungsten, tin, zinc, lead, copper, silver, gold, iron and molybdenum.
- North eastern Tasmania, bounded by Scamander-Avoca-Lefroy, which has long been prospected for gold, tin, tungsten, silver and lead.

13.3.1 Petroleum Exploration

Offshore

Petroleum exploration during 1986–87 continued at very low levels, largely due to the collapse of international oil prices early in 1986. During this period no wells were drilled and no new seismic surveys were undertaken.

Early in 1987 two areas on the west Tasmanian continental shelf were made available for work-program tendering. Despite the downturn in exploration caused by the 1986 price collapse, interest in the area was high.

Onshore

Conga Oil Ltd increased their exploration activities in south eastern Tasmania during the year. Exploration is directed to finding hydrocarbons sourced from Ordovician carbonate sequences and drilling was expected to commence late in 1987.

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Chapter 14

FORESTRY AND COMMERCIAL FISHING

In Tasmania primary industry is the dominant contributing sector to the State's economy. Agriculture and mining, with forestry through the manufactured value of paper, paper pulp, woodchips and sawn timber and the developing fishing industry provide in excess of 75 per cent of the State's economic base.

Because Tasmania's forests provide such a significant slice of the State's manufacturing and export income, forest management and conservation policies have been subject to intensive public scrutiny and debate over recent years.

Tasmania's fishing industry has been expanding over the last 20 years or so. Acquaculture has become an industry of considerable potential with species such as Atlantic salmon, sea trout and oysters, providing new ventures and export markets. The first full season of fishing for jack mackerel confirmed the presence of a significant and exploitable resource, while abalone and orange roughy are other relatively new species having a significant commercial value.

14.1 FORESTRY

Tasmania is unique amongst Australian States in its concentration of forest resources. No other State has similar widespread conditions conducive to forest growth: a cool temperate climate and a reliable rainfall varying locally from 500 to 3 800 millimetres with relatively small seasonal variation. Although land clearing, timber exploitation and fires have left their mark, the Forestry Commission estimates that the current total forest area (including some forest of little or no commercial value) is 2 988 400 hectares or about 44 per cent of the State's total area.

14.1.1 Forests, Timbers and Plantations

Forests

Three main vegetation types, dry sclerophyll, wet sclerophyll and mixed forest form the productive, commercially harvested native forest estate.

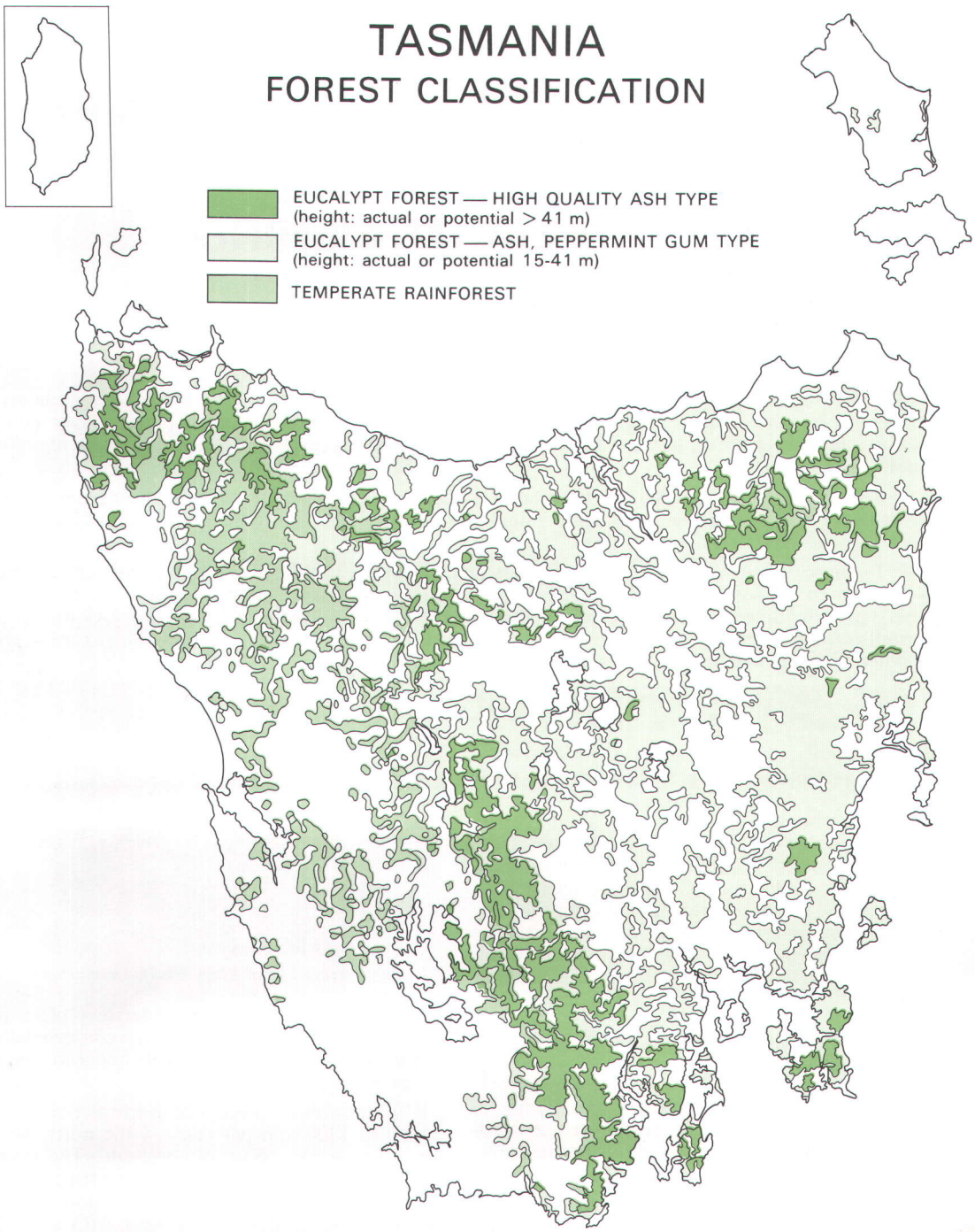
Dry sclerophyll forests occur where rainfall is between 500 and 1200 mm per year. One or two eucalypt species usually dominate the canopy; for example gum top stringybark or white top stringybark (*Eucalyptus delegatensis*), and white gum (*E.viminalis*) with an understory of small trees and shrubs. This forest type is commercially important in the central north and east coast regions.



Fishing boats tied up at Kings Wharf, Launceston

Wet sclerophyll forests occur where rainfall is 1000 to 1300 mm per year, in the north east, north west and south of the State. The main canopy species include gum top stringybark, brown top stringybark (*E.obliqua*) and stringy gum or swamp gum (*E.regnans*), with a dense understory of small trees, shrubs and ferns.

Mixed forests consist of a tall eucalypt canopy with an understory of rainforest species including


TASMANIA
FOREST CLASSIFICATION
EUCALYPT FOREST — HIGH QUALITY ASH TYPE
(height: actual or potential > 41 m)
EUCALYPT FOREST — ASH, PEPPERMINT GUM TYPE
(height: actual or potential 15-41 m)
TEMPERATE RAINFOREST

myrtle, sassafras, leatherwood and celery top pine. These forests occur where rainfall is more than 1200 mm per year, concentrated in wetter, more fertile areas in the west and south, with scattered pockets in the north east.

In areas of high rainfall, of about 1500 mm or more, with relatively low fire frequency, and suitable soils, temperate rainforests are found. These are characterised by the dominance of myrtle (*Nothofagus cunninghamii*), sassafras (*Atherosperma moschatum*) and leatherwood (*Eucryphia lucida*). No timber harvesting operations occur in stands of pure rainforest. Blackwood (*Acacia melanoxylon*) grows where rainforest has been disturbed in the past, principally by fires, in the north-west around Smithton.

The forests are often classified according to their ages. They can be oldgrowth or regrowth forests.

Oldgrowth Forests: The main canopy trees are usually older than 110 years and show signs of old age through damage and decay. They often have hollow butts, gaps in the crown, large twisted or dead limbs, or hollow branch stubs. Oldgrowth forests are generally overmature, having stopped actively growing.

Regrowth Forests: The main canopy trees are less than 110 years old and the forest is still growing vigorously. The trees look healthy with few signs of decay. Regrowth forests mainly occur as a result of past logging and wildfires.

Timbers

Hardwoods: The most valuable eucalypts are those which belong to the 'ash' group; stringybark (*Eucalyptus obliqua*), gum top stringybark or alpine ash (*Eucalyptus delegatensis*) and swamp gum or mountain ash (*Eucalyptus regnans*). In the south and south-east Tasmanian blue gum (*Eucalyptus globulus*) occurs in high quality forests. In areas where the annual rainfall is below 760 mm the more important eucalypts are black peppermint (*Eucalyptus amygdalina*), swamp or black gum (*Eucalyptus ovata*), white gum (*Eucalyptus viminalis*), stringybark (*Eucalyptus obliqua*) and white peppermint (*Eucalyptus linearis*).

Tasmania has 11 tree types that are suitable for use as pulpwood, of which ten are eucalypts. The other is myrtle, a rainforest hardwood available in the north-west of the island. The eucalypts are graded by quality:

- First quality ('ashes'); stringybark, gum top stringybark, swamp gum and ironbark.
- Second quality ('gums'); white gum, blue gum and swamp or black gum.
- Third quality ('peppermints'); black peppermint, white peppermint and silver peppermint.

The gum top stringybark and stringybark account for over 60 per cent of all eucalypt logs cut for woodchipping.

Softwoods: Although Tasmania's native forests produce some very valuable softwood timber, including King Billy pine, Huon pine and celery top pine, they are very slow growing and in short supply. For these and other reasons, attention has been given to building up another section of the total forest estate by growing plantations of exotic species.

Plantations

Fast-grown softwood plantations have been established in State forest initially to fill an expected sawlog scarcity. In addition, these softwood plantations yield a long-fibred pulp which is a requirement of paper production. Softwood plantations cover less than 2.4 per cent of State forest area and radiata pine (*Pinus radiata*) is the principal species planted. An increasing area of native hardwood plantations has been established in recent years.

There have been two stages in the establishment of the State's softwood plantations. The first involved planting on derelict farmland which had reverted to scrub and bracken following early agricultural practices. Undertaken during the period between 1935 and 1960, its goal was to produce sawlogs in the shortest possible time to bridge an anticipated shortfall in hardwood sawlog availability in the 1980s and 1990s.

The second stage began in 1961. The continuing demand for long-fibre conifer pulpwood, to serve an expanding pulp and paper industry, saw the extension of planting into areas of low quality native forest. Radiata pine plantations now provide a large part of Australian-grown wood supplies. Large-scale establishment of these plantations was commenced by State Governments early this century. In the 11-year period covered by the *Federal Softwood Forestry Agreement Acts* 1967, 1972 and 1976, the Commonwealth provided financial assistance to the State for an extended program of softwood plantation development. An extension to the Act in 1978 provided funds for maintenance of the plantations already established for another five years.

In 1987 Tasmanian State forest plantations comprised 38 300 hectares of softwoods and 3 868 hectares of hardwoods. Most softwood plantations are in the Fingal, Scottsdale, Devonport and Burnie districts, while hardwoods are distributed more widely.

14.1.2 Ownership and Control

Of the total forest area of 2 988 400 hectares, 40 per cent is in State Forest, 23 per cent is privately owned, 22 per cent is Crown Land and 13 per cent is in Crown reserves. The need for permanent reservation of land for timber production was first given statutory recognition with the *Waste Lands Act* 1881. A program of acquisition of land suitable for dedication as State forest has seen the gazetted area reach 1 601 007 hectares at 30 June, 1987.

14.1 TENURE OF FOREST AREA ('000 ha)

Tenure	*High quality eucalypt*	*Low quality eucalypt*	*Rain forest*	*Plantations*
State forest	370.0	710.0	168.1	41.9
Forest reserves	3.7	6.9	1.2	–
Crown land	33.7	364.9	199.5	–
Crown reserves	26.8	248.5	100.4	–
HEC	8.8	47.0	4.2	–
Private property	26.0	608.7	25.3	41.2
Total	469.0	1 986.0	498.7	83.1

State forests: Tenure by the Forestry Commission under the *Forestry Act*, 1920.

Forest reserves: Areas provided for recreational, scientific, environmental and aesthetic purposes established within State forests.

Crown land: Unallocated land with tenure by the Department of Lands, Parks and Wildlife; wood production and sale controlled by the Forestry Commission.

Crown reserves: Principally National Parks and State Reserves administered under the *National Parks and Wildlife Act* 1970.

HEC: Land vested in the Hydro-Electric Commission.

Timber Concession and Reserve Areas

The establishment in Tasmania of various industries using forest resources has given rise to the need for some guarantee of assured timber supplies to those industries. Therefore, certain concessions and cutting rights on Crown lands have been awarded to companies relying on forest products as their raw matrials. Cutting rights apply only to Crown land and State forest within the concession boundaries. Concession areas are those areas where a company is at present allowed to operate while reserve areas are set aside for future use. Providing that the company meets certain stipulated conditions, permission to remove timber from the reserve area may be granted by the Forestry Commission.

14.1.3 Forest Utilisation

While sawmilling of native forest timbers had become a major part of Tasmanian industry by the mid nineteenth century, in recent years pulpwood for the manufacture of papers, and woodchips for export have become equally important forest based industries in terms of the volume of timber processed.

Establishment of the woodchip export industry and the expansion of other timber-using industries has resulted in greatly increased annual timber requirements necessitating careful utilisation of existing forest resources and the development of viable reforestation schemes. Integrated forest operations seek to maximise use of the forest resource by allocating the best logs as sawlogs, a lower grade as optional sawlogs and the remaining merchantable logs as pulpwood or woodchip timber. This strategy facilitates regeneration of the forest as most of the standing trees are removed through clear-felling, decreasing competition for existing nutrients and light.

Woodpulp and Paper

The manufacture in Tasmania of fine writing and printing papers commenced at Burnie in 1938 following technological developments allowing hardwood fibre to be used as a prime resource. In 1941 the first newsprint mill in Australia was established at Boyer on the Derwent. A further pulp and paper mill commenced operation at Wesley Vale near Devonport in 1970 producing magazine and directory grade papers. During the past fifteen years pulpwood produced for local processing into paper has shown only a gradual increase, in contrast to the doubling of the quantity of woodchips produced. Whereas in 1972–73 woodchips and pulp locally processed was 36.2 per cent of total production, in 1986–87 it had fallen to 25.9 per cent.

14.2 CHIPPED, GROUND AND FLAKED WOOD LOCALLY PROCESSED

Year	*Tonnes (green weight)*
1972–73	793 700
1976–77	832 000
1978–79	781 200
1980–81	1 073 600
1982–83	875 000
1984–85	900 300
1986–87	1 034 600

Woodchips

Tasmanian forests have been supplying woodchips for export under licence (mainly to Japan) since 1971. In 1972–73, 1.4 million tonnes of

chips were exported. By 1986–87 about 2.9 million tonnes of woodchips were being produced for export.

14.3 WOODCHIPS PRODUCED FOR EXPORT, TASMANIA

Year	*Tonnes (green weight)*
1972–73	1 397 200
1976–77	2 041 100
1978–79	2 196 600
1980–81	2 354 100
1982–83	2 293 300
1984–85	2 750 400
1986–87	2 957 300

Three companies currently hold export licences, APPM, its subsidiary Tasmanian Pulp and Forest Holdings and Forest Resources, and each were due for review by 1988.

Before renewing woodchip export licences, the Commonwealth Government required licence applicants to prepare an environmental impact statement.

This major document, the Environmental Impact Statement on Tasmanian Woodchip Exports beyond 1988, was commenced in early 1984 and a draft document was completed in June 1985 by the EIS Study Group that consisted of representatives from APPM, Forest Resources and the Forestry Commission. After a two-month period of public review the final report was prepared in the form of a Supplement to the draft document.

The Commonwealth Government granted 15-year licences to the woodchip export companies from 1988. The licence renewals have been granted with conditions that strict environmental standards must be followed, that yearly reports be prepared on activities and that companies comply with export licence conditions.

The Forest Practices Code

It has been recognised by all involved with forestry that it is important to care for environmental values during harvesting operations. To this end, a *Forest Practices Act* was passed in 1985 to ensure that forest operations are conducted in an environmentally acceptable manner on both Crown and private forest lands. The Code is part of a process for encouraging all sectors of the forest industry to progressively improve forest practices. The Code provides a set of standards to protect environmental values during forest operations and is designed to take a practical approach to protect numerous environment values.

14.4 MATERIAL USED IN CHIPPING, GRINDING AND FLAKING OF WOOD ('000 m³)

Year	*Logs*	*Sawmill offcuts*
1972–73	2 133.7	224.1
1976–77	2 913.2	248.2
1978–79	2 935.2	263.5
1980–81	3 369.8	308.8
1982–83	3 182.0	212.3
1984–85	3 594.7	266.7
1986–87	3 970.4	303.4

Timber

Sawmilling is Tasmania's oldest industry. Shortly after the colony was established in 1803, Government sawpits were in operation in Hobart. The first water powered sawmill was constructed in 1824 and by 1838 the colony was exporting around 900 m³ (roughly 300 000 super feet) of timber annually. The first steam powered mill was established in 1844 and 22 mills were in operation by 1859.

Expansion in the industry was slow until the 1890s when amendments to the *Crown Lands Act* sparked a rapid expansion, which continued until the mid 1920s. The depression seriously affected both employment and production, with output in 1931–32 falling to 32 per cent of what it had been in 1923–24.

From the mid 1930s to the 1970s the industry continued to expand. By 1974–75, the total log usage for sawing, peeling and slicing had reached over 1 million cubic metres. This was seen as too high. To prevent the possible eventual collapse of the industry, the Forestry Commission introduced reductions in the volume of sawlogs that millers could obtain from Crown forests. The first reduction of 20 per cent took place in 1977.

The reduced volume of hardwood milled was offset to some extent by a trebling in usage of plantation softwood logs. As well, since 1980 the volume of eucalypt used has fallen while that of blackwood, myrtle and sassafras from rain forests has increased.

14.5 LOGS USED IN SAWMILLING AND PLYWOOD ('000 m³)

Year	*Hardwood*	*Softwood*
1972–73	1 068.7	28.3
1976–77	894.8	91.7
1978–79	789.0	73.8
1980–81	807.1	185.1
1982–83	503.2	167.9
1984–85	631.4	212.9
1986–87	585.0	242.0

14.6 LOGS USED AND TIMBER PRODUCED ('000 m³)

Year	*Logs used*					*Timber produced*				
	Hardwoods		*Softwoods*			*Hardwoods*		*Softwoods*		
	Eucalypts	*Rain forest*	*Plan-tation*	*Natives*	*Total*	*Eucalypts*	*Rain forest*	*Plan-tation*	*Natives*	*Total*
1978–79	775.2	13.8	65.3	8.5	862.8	285.1	4.2	28.3	3.0	320.6
1980–81	780.7	26.4	178.9	6.2	992.2	289.4	8.9	73.2	2.4	373.9
1982–83	475.6	27.6	161.2	6.7	671.1	175.0	8.1	62.6	2.3	248.1
1984–85	611.9	19.4	207.0	5.8	844.2	227.7	5.7	79.1	2.0	314.5
1985–86	603.3	23.6	227.3	4.6	858.9	218.3	6.6	85.0	1.6	311.6
1986–87	559.9	25.1	236.2	5.8	827.0	195.4	7.1	94.9	1.9	299.3

Environmental Impact Statement

One of the most intensive investigations yet of the State's forest practices and forest industries ended in September 1985 with the completion of the Supplement to the draft Environmental Impact Statement on Tasmanian woodchip exports beyond 1988.

In June 1986 the State and the Commonwealth signed a joint memorandum relating to the export of woodchips from Tasmania.

This Memorandum of Understanding (MOU) provides a process by which a range of views is to be taken into account in making planning decisions. The State retained the right to determine land use, but it was agreed that the Commonwealth should have an opportunity to provide its views on aspects of forest management in certain areas. Of particular concern was the question of logging in State Forests which have been listed by the Australian Heritage Commission on its National Estate register. While it does not provide a procedure for resolution of all possible differences, the MOU provides a process for continuing improvements in forest management, for the issuing of licences for woodchip export, for research and development, and for taking into account values in sensitive multi-use areas.

The Forests as an Energy Resource

The oil replacement value of wood used for domestic space heating, and for thermal purposes like steam raising in industry, is $40 million annually. Over 85 000, or 53 per cent of all households, each burn an average of 6.6 tonnes of wood per year. The wood is mainly supplied from forest residues on private and Crown land. The increase in firewood demand has led to some increase in part-time and casual employment.

In the last two years there has been a substantial increase in the use of sawmill residues, such as green sawdust, as boiler fuel. The dairy, meat and vegetable-processing industries have been at the forefront of moves to install wood-fired boiler systems as a means of reducing operating costs. On King Island, seaweed (kelp) is now dried in kilns that are wood fired.

14.1.4 Forest Management and Research

The Forestry Commission is directly responsible for the management of Tasmania's State forests. The Australian Forestry Council, formed by the Australian and State Governments, coordinates national programs for the production, utilisation and conservation of Australian forests. Research into a range of resource and technological aspects of the forest-based industries is undertaken by the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

The major goal of forest policy is to achieve sustained production of sawlog and pulpwood as a basis for stable forest based industry.

The major goal for the native hardwood forests has been to achieve sustainable production of sawlogs and pulpwood as the basis of a stable forest sector economy. The means to achieve this goal include:

- Dedication of suitable areas as State forest, and rationalisation of State forest boundaries.
- Sound knowledge of the forests and careful planning. The Commission's Planning and Resources Branch collects information on the forests, their distribution, timber volumes and quality, age, species, growth rate and visual quality. This information is used to prepare management plans. Planning is the corner stone of the concept of forest production in perpetuity, or sustainable yield, as it involves the calculation of the timber volumes available for harvesting each year against the growth potential of the forests.

- Constructing roads into forest areas that provide access for timber harvesting, research, fire protection and public recreation.
- Regenerating logged areas. In wetter forests clearfelled for sawlogs and pulpwood, the usual practice is to burn logging debris then aerially sow with eucalypt seed of the species formerly on the site. However, in drier forests, where areas have been selectively logged, soil disturbance by logging machines is often sufficient to stimulate regeneration. In 1986-87, 5 839 ha were aerially seeded for regeneration.
- Protecting the forests from harmful pests and diseases through research and monitoring, and from wildfires through a system of early detection and swift suppression.

Plantations of softwoods and hardwoods are an intensive, high capital form of forest management that aims to produce volumes of timber quickly. As in native forests, establishment and management of plantations needs careful planning, roading, protection and harvesting.

New Commissioner

On 17 December 1986 Mr A.G. Skuja was appointed Chief Commissioner for Forests, replacing Mr J.R. Quick who had retired early in the year after five years in the position. Mr Skuja had been Commissioner (Management) prior to which he was Regional Forester North-West.

The Forestry Commission's responsibility for State forests was widened by the *Forestry Act* 1977, which empowered the Commission to promote the development and proper management of private forests. The Act provided for a Private Forestry Council to advise the Forestry Commission on private forestry and a Private Forestry Division to provide advice and assistance to forest owners and potential forest owners.

14.7 ACTIVITIES OF THE FORESTRY COMMISSION, TASMANIA: SUMMARY

Particulars	*1983–84*	*1984–85*	*1985–86*
Area prepared for regen. burning (ha)	6 502	4 048	5 839
Seedlings produced ('000)	3 530	3 912	4 327
Plantations — established during year (ha)	1 421	1 688	1 261
Firebreaks — constructed (km)	78	107	242
Roads — constructed (km)	112	115	86
— improved (km)	10	117	108

Both these organisations were officially established in September 1978. The private forest estate is a major part of the State's forest resource.

The Commission also has a responsibility for controlling forest fires on or near State forests. In the 1984–85 season, the Commission fought 71 fires that burnt over 2 000 hectares.

In Tasmania the CSIRO Division of Forest Research is engaged in three main projects; the mathematical modelling of forests and of tree growth, the genetic resources and physiology of commercial species, and forest diseases.

Mathematical models aim at improving knowledge of competition between trees and of yields obtainable from high quality eucalypt regrowth forest. Specific attention has been directed to the ecology of the gum-topped stringybark, an important production species, in its competition with rainforest species in the absence of fire, and problems associated with achieving efficient regeneration.

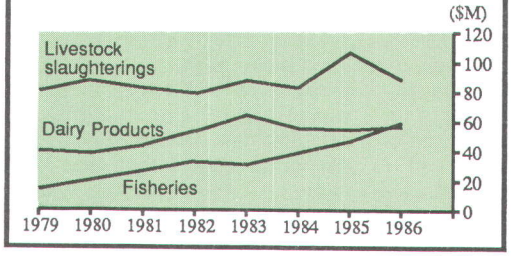
Genetic improvement of plantation conifers and eucalypts, both through seed improvement and vegetative propagation, is under investigation. More general genetic studies are of the reproductive biology and pollination mechanisms of native tree species. Growth rates and environmental factors affecting the functioning of plantation trees are also under detailed investigation.

Forest diseases, their carriers and the effect of disease on tree growth are being researched. Specific diseases include a premature needle-loss syndrome affecting exotic pines in Tasmania and dieback in several native forest species.

14.2 COMMERCIAL FISHING

Commercial fishing in Tasmania has seen dramatic growth in both scale and diversity in recent decades. While consolidation will be necessary to maintain production levels and enable further growth, fisheries value of production now ranks with other significant primary industry sectors.

VALUES OF FISHERIES, DAIRYING AND LIVESTOCK SLAUGHTERING, TASMANIA



The gross value of fisheries production for 1985–86 was $56.6 million and resulted from the landings of 30 857 tonnes of fish and shellfish. Both landings and value set new records. The catch was 10 000 tonnes up on the previous year and value of the landings exceeded the previous record set in 1984–85 by $11 million. The improvement in price was very largely influenced by the depreciating value of the Australian dollar.

The industry has, with its increased scale and importance, experienced concurrent changes in management techniques and in research and development activities. While many of these changes have been necessary administrative procedures, local innovation has seen original and potentially valuable developments. For example, culture of oyster spat is already a rewarding industry within a few years of its development and other fisheries techniques, such as Atlantic salmon farming, have been adapted to local conditions.

14.2.1 Fishing: An Historical Necessity

The Convict Era 1803–1850

In early Van Dieman's Land supplies from the outside world were obtainable only sporadically, leading to shortages sometimes verging on starvation. Attentions turned to natural resources and other means of self sufficiency. Although kangaroos, emus and waterfowl were more reliable, fishing was undertaken from the earliest days. Early in 1806 a huge haul of mackerel caught by seine net opposite Knopwood's cottage in Battery Point, Hobart, was parcelled out amongst the convicts, providing an important food supplement to the fledgling settlement then on the brink of starvation.

Whale and seal fisheries had predated settlement in Van Dieman's Land. As a risky but potentially highly profitable industry, much exploration and support to the fledgling settlements were undertaken, a pattern that was to continue throughout the nineteenth century. Oil production, and sealskin and whale by-product exports were important industries based around the young colony, but they ultimately led to the decimation of target species.

1850–1900

Whaling declined through the second half of the nineteenth century. The more easily caught southern right whales had become rare in local water and offshore hunting of sperm whales was both a more substantial undertaking and less economically rewarding. The market for whale oil also declined as mineral oils superseded the more expensive natural product.

Victoria's development during this period provided a ready market for Tasmanian exports. In the 1870s King Barracouta were caught by trolling lures, but the fisheries suffered an apparently natural decline over a decade or so. Crayfish or rock-lobsters provided a steady income to fishermen. Native mud oysters, previously an important food of the Tasmanian Aborigines, were dredged commercially from southern bays and estuaries. For some decades, hundreds of thousands were sold in Hobart but after the 1880s the supply declined markedly despite the occasional discovery of new beds. Scale fish such as flathead, cod and flounder were also supplied to the local market.

Twentieth Century Fisheries to 1960

Scallop dredging commenced in Tasmania in 1905 in the Derwent Estuary. Until 1925, public acceptance of scallops was low but sufficient to deplete local beds to the extent that restrictive legislation was required. This in turn resulted in transfer of the fishery to sheltered beds in the D'Entrecasteaux Channel. For two decades production levels increased, peaking in 1947 when 51 boats dredged 23 million scallops to yield 400 tonnes of scallop meat. A subsequent decline resulted in further exploration and the discovery of new east coast beds which allowed production levels to be maintained. In 1957 scallops were discovered in commercial quantities in mainland Australia for the first time, (near Bundaberg in Queensland), breaking Tasmania's near monopoly on the Sydney and Melbourne markets.

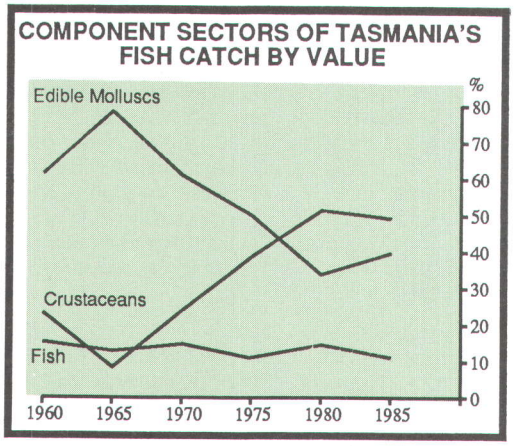
Scale fish harvested during this period comprised mainly Australian salmon, barracouta or snoek, rock cod, flathead, trumpeter, mullet, trevally and sea garfish. The method of catching Australian salmon involved watching from headlands for surfacing schools followed by pursuit and netting. Inshore set-net and beach-seine techniques were targetted at trumpeter, mullet, trevally and garfish on a smaller scale than the salmon fishery. Flathead, rock cod and barracouta or snoek caught by trolling were also significant contributors to domestic markets.

A significant shark fishery was re-established in Tasmania at the beginning of the Second World War, primarily as a substitute source of vitamin A, which could be obtained from shark liver, but also for the flesh in the fresh fish trade. Shark has consistently been a preferred rock lobster bait as the flesh is firm, a factor which has also led to its popularity as a food, especially on Victorian markets.

Crayfish or southern rock lobster has long been a popular, though relatively expensive, seafood. The catching technique, using a baited funnel trap or craypot, has changed little, but is

both laborious and subject to the vagaries of weather conditions. As an export commodity, rock lobster developed during the 1930s from being a significant but small export-earner, to a dominant proportion of all interstate and overseas seafood exports. With World War Two this trend was reversed as more basic food-fish were substituted for the luxury product. This latter trend continued into the late 1950s when the value of crayfish exported from Tasmania again exceeded that of scale fish.

Technological innovation has significantly influenced the various local fisheries, especially from the 1930s onward. Most developments have originated elsewhere and been adapted to local conditions. Mechanisation, for example, was introduced into northern hemisphere fisheries early in the twentieth century with steam powered vessels and large scale purse-seine netting, but in Tasmania mechanisation was primarily through the gradual introduction of diesel engines from the 1930s onwards. Echo location equipment for depth sounding was developed in the 1930s and extended in function into electronic fish detection during World War Two. This technology was economically marginal in local fisheries on introduction, but subsequently has been adopted almost universally after solid-state electronics and mass-produced equipment became available. Artificial fibres applied to nets, ropes and other gear revolutionised such equipment from the 1950s. Unlike previous new technologies mentioned, such materials tended to be price competitive from their introduction and applicable to almost any scale of operation. Power-assisted equipment such as winches for hauling of craypots and nets supplemented the introduction of powered craft.



14.2.2 The Modern Industry, 1960–1986

Through the 1950s the value of fisheries production was relatively static but from then has shown significant increases in real terms. Three industry sectors are the primary contributors. The fish sector includes the shark fishery and, until the recent advent of fish farms, has been based on natural populations. Rock lobster is the dominant crustacean product in Tasmania, with prawns and freshwater crayfish produced on a smaller scale. Edible molluscs include the traditional mud and cultivated rock oysters, scallops and the more recently marketed abalone and farmed mussels. Although abalone production commenced in Tasmania, and indeed Australia, only in the mid-1960s, it has come to dominate, in terms of value, the edible mollusc sector.

Scale Fish and Shark

Of the three principal fishery sectors, fish represents a relatively consistent 10–15 per cent of overall value of production, at least over the last 25 years. In a climate of rising production values generally, growth in fish values has therefore also occurred. Rather than representing a general increase across all components, deep-sea fish, inland and estuarine farmed fish, and seaweed have contributed most of the overall increase in total value of production.

Deep-sea fisheries involve logistic difficulties and scales of operation far exceeding those of more traditional local fisheries. Against this, trawling may produce large single catches and the species caught often attract high unit values. Species such as orange roughy, deep-sea trevalla, gemfish and blue grenadier have all gained acceptance on local, interstate and overseas export markets, especially since the dietary benefits are also highly regarded. Amongst the logistic problems is the uncertain extent of such fisheries. Overseas, long-term fishing patterns and related research have allowed scientific management controls to be applied. Although such studies are already underway in Tasmania it may be a decade or more until the viability of deep trawls, especially those exploiting highly localised concentrations of species such as orange roughy, are established.

Despite extensive and successful trialling of deep-trawl techniques undertaken by the Tasmanian Department of Sea Fisheries (TDSF), local fishing enterprises have been slow to move into this potentially lucrative fishery. By 1986 only one Tasmanian-based enterprise had entered the offshore trawl fishery. Landings of deep-trawl species in Tasmania in 1985–86 increased by 25 per cent to reach 545 tonnes worth more than $865 000.

Trevalla, a species harvested chiefly by drop-lining, requires less elaborate equipment than trawlers, but because suitable grounds may be up to 250 km offshore, boats of around 30 m and more in length are required to withstand the adverse weather often experienced. In 1985–86 the trevalla catch fell to 125 tonnes, slightly above the 1983–84 level but well below that of 1984–85 during which lucrative new grounds were first exploited.

14.8 TASMANIAN FISH CATCH, 1985–86

Species	*Landed weight*	*Value ($)*
Flounder	3 268	9 228
Cod	3 519	4 030
Blue Grenadier	185 677	215 299
Tuna	12 879	10 379
Snoek	56 168	29 634
Gemfish	25 288	43 927
Mullet	6 366	5 371
Trevally	65 982	65 322
Warehou	17 370	36 853
Mackerel	22 328 216	1 535 134
Deep Sea Trevalla	124 653	281 401
Spotted Trevalla	3 777	10 453
Salmon	884 693	510 287
Boarfish	775	1 061
Morwong	27 005	31 493
Whiting	32 471	21 001
Trumpeter	12 717	38 577
Latchet	1 856	2 449
Flathead	22 956	18 994
Shark	424 745	1 051 013
Skate	579	585
Leather Jacket	1 222	1 636
Garfish	34 941	72 542
Orange Roughy	303 305	566 751
Dory	40 344	50 692
Ling	16 288	31 837
Rock Lobster	1 456 014	16 233 304
Crab	872	3 009
Octopus	9 761	12 857
Scallop	483 596	3 326 318
Abalone	3 558 028	30 800 998
Squid	3 583	5 566
Periwinkle/Sea Urchins	6 201	4 961
Oysters	659 041	1 550 853
Mussels	36 850	65 746
Other	6 014	3 829
Total	30 857 020	56 653 387

Source: Department of Sea Fisheries.

Following a substantial increase in landings in 1984–85, recorded landings of shark fell in 1985–86 to 425 tonnes. This decline may be in part due to a resumption of scallop fishing, but may also reflect the introduction of an interim management regime for shark fishing in Commonwealth waters. This plan encouraged fishermen to report catches of shark in the previous year in order to qualify for licences.

Shark catches have proved the most reliable sector within the period of review. Longlining, where many baited hooks are attached close to a long, anchored rope, is the principal catching method. Shark fishing is traditionally an important adjunct to rock lobster fishing in Tasmania, both as a seasonal alternative fishery and as a bait source. Tasmanian fishermen have therefore opposed single-fishery licensing controls mooted for Commonwealth waters.

Jack-mackerel has long been recognised as probably the most abundant commercial fish in the Tasmanian region. Huge shoals form off eastern Tasmania each autumn and early winter. Its strongly flavoured, dark oily flesh is, however, not popular in Australia but is ideal for large-scale canning for export.

Harvesting of the species on a significant scale was attempted from 1979 to 1982 but the enterprise subsequently collapsed due to insufficient capitalisation and initial processing difficulties. In 1984 another attempt to utlilise jack-mackerel was initiated and since then jack-mackerel has dominated the tonnage of all fish landed in Tasmania. Using the large-scale purse seining method and high technology aerial surveillance equipment, catches of 20 and 40 thousand tonnes per annum have been reported for 1985–86 and 1986–87.

The fish is processed into fish meal, much of which is fed to farmed salmon and trout. Fish meal is also used as a stock feed additive and as a fertiliser. This process has initially been from a floating factory but further onshore infrastructure is under construction. Despite the enormous catch tonnages by local standards, the low unit-price led to a significant, but not dominant, increment in the total value of the 1985–86 fish catch in Tasmania.

Fish farming has a long and important history in countries such as China, but is relatively new to Tasmania. The basic principle is that the vulnerable early developmental stages of the fish are raised under carefully controlled conditions. Young fish are then placed in cages, often in sheltered open waters, and fed until required for harvesting or breeding. Another form of fish farming is the capture of migratory elvers as they move up rivers and their cultivation into marketable eels.

Trout and Atlantic salmon, both members of the salmonid family, are the principal farmed species in Tasmania. Although salmonid hatcheries have existed in Tasmania since 1864, their initial purpose was the naturalisation of exotic salmonids to supplement the native freshwater fish. Trout are principally fresh water fish although adult fish will tolerate brackish condi-

tions; Atlantic salmon spend their adult stages in the sea. Both thrive in cold, clean water, an abundant resource in Tasmania. Maintenance of a viable and protected environment is a necessity and involves considerable infrastructure. Both trout and salmon are esteemed table fish, with the latter attracting premium prices.

The marketing of farmed trout has become economically significant and considerable investment has been applied to Atlantic salmon farms. From 1983–84 to 1985–86 the value of adult trout production trebled to $1.6 million, while the value of ova more than doubled to reach $0.4 million. 1985–86 also saw the first Atlantic salmon marketed, reported to be 52 tonnes valued at $1.1 million retail.

The intensive nature of fish farms has a number of potentially adverse effects and is susceptible to catastrophe. The structural intrusion of large buoyed cages into sheltered bays has been a point of objection in accessible, scenic areas. Effluent, both directly from cages and from processing works, may also be a problem. From the producer's point of view, the close confinement of the fish tends to increase the risk of disease and parasitism. Predation from seals has proved an early difficulty in estuarine fish farms. Licences to shoot otherwise protected seal species have been issued. In the longer term, strengthening of cages may be a more satisfactory solution since even an occasional seal breaching a cage may result in major economic loss.

Initial marketing of salmonids on a significant scale has seen ready acceptance of the products, expecially in Australian restaurants. Initial hopes of major overseas exports have been dampened by extremely rapid production growth in the northern hemisphere, particularly Norway and elsewhere in Scandinavia and in Canada. New Zealand also produces farmed salmonids but otherwise Tasmania seems assured of further growth in this relatively new fishery.

Crustaceans

Rock lobster or crayfish is by far the most commercially important Tasmanian crustacean. Its habitat, rocky seafloors, is not as extensive as in South or Western Australia where large offshore reef systems exist. It nonetheless remains an important fishery, contributing to both local and export markets. After 19 years of annual increases in catches a downturn of 24 per cent from the previous year was experienced in 1985–86. The value of the 1985–86 catch declined only marginally, however, as export price levels strengthened. The decline in catch size was attributed to unseasonal catching conditions.

Maintenance of a viable rock-lobster industry is achieved via a restrictive licencing policy, seasonal limits, the mandatory use of escape slots to enable small specimens to escape and rigorously enforced size limits. Research into the seasonal behaviour of rock lobster has enabled the open season to be extended on a regional basis. Concern has been expressed about conservation of the fishery, but the continuing market interest in traded licences and ongoing monitoring of stock are regarded by authorities as at least interim guides to future prospects in the fishery.

Edible Molluscs

Scallops and oysters are the traditional edible molluscs in Tasmania and have recently been supplemented by abalone, squid, octopus and periwinkles. As contributors to the gross value of fisheries production, molluscs have surpassed the fish and crustacean groups since the establishment of the important abalone industry in the late 1960s.

With the signing of an agreement between the Commonwealth and State Governments, Tasmania gained control over almost all of the scallop resources adjacent to the State for the first time during 1985–86. The Government immediately introduced a new management regime which limited the number of vessels licensed to fish and regulated landings by limiting the quantity of scallops which each vessel may carry at any time.

The downturn that occurred for 1984–85 continued, with grounds being closed for much of the year. However, the harvest of previously closed areas in Bass Strait was principally responsible for the fact that landings exceeded those of the previous year. Almost 3 000 tonnes of scallops were caught and sold on a strong market which resulted in the value of the fishery exceeding $3 million, which was more than 50 per cent above the value of the fishery in 1984–85.

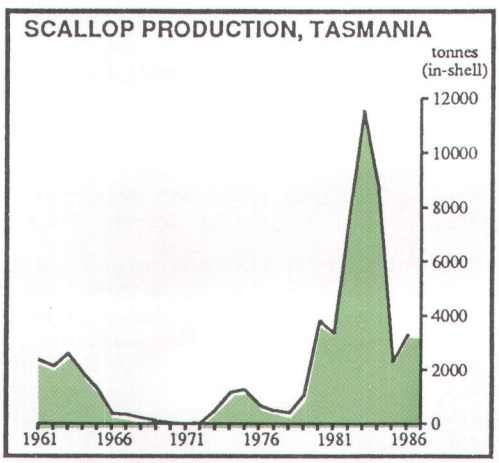
Abalone is a shellfish living on marine algae on rocky seafloors. Its principal markets are in Asia, especially Japan where its appeal as a food commands high prices. Its importance as an export product has risen steeply to the point, where in 1985–86, its value as an overseas export from Tasmania, $30.8 million, exceeded that of wool. This record value was achieved despite a reduction of 10 per cent in the quota for 1986.

Licences issued by the State government are currently limited to 125 with a maximum quota of 28 tonnes each and an annual fee based on catch size. Intense competition has seen licences traded on the open market for more than $500 000. Quotas, introduced in 1985, are seen as an industry control that should enable a sustainable yield while enabling divers flexibility in

planning their work programs and in lowering health risks. Although high licence values are seen as an indication of confidence in the fishery, relatively little is known of its biology. Research has indicated that, at least in Tasmania, removal of mature breeding stock usually results in negligible re-settlement by immigrant stock, and thus potential collapse of the fishery, as has occurred overseas. Experiments have also been conducted with a view to either re-seeding natural habitats or farming abalone from the spawning and larval stages.

Abalone diving is both labour intensive and potentially hazardous. Diving equiment may be as simple as the diver's personal apparatus although more usually a boat and breathing equipment are used. Boats are often fast run-abouts that enable flexibility of dive location and versatile access to rocky coasts. Diving in more remote areas is sometimes facilitated using a larger boat accessed by dinghies. Although abalone are found in shallow sub-tidal seafloors, they extend into depths at which decompression sickness or 'the bends' is an insidious but well recognised hazard. Because the onset of some symptoms may be delayed, diver precautions such as limited depth and duration of dives are important.

Scallops chiefly occur in rich beds at water depths of 10–50 metres. The discovery and exploitation of these beds has always resulted in sporadic marketing of scallops.



In 1985–86 almost 3 000 tonnes of scallops, slightly more than the 1984–85 catch, were caught after waters previously closed were opened to fishing. A strong market saw the value of the 1985–86 catch increase by more than 50 per cent on the previous year.

Oysters have undergone a resurgence in recent years based on introduced cultivated rock oysters rather than the historically important native mud or sand oysters. Oyster farming involves the placement of artificial substrates such as extensive timber racks into shallow protected coastal waters, thus simulating the oysters' normal rocky intertidal shore habitat. Throughout the 1970s, production levels of around 100 tonnes (in-shell) per annum were experienced, increasing throughout the 1980s to 658 tonnes, worth $1.6 million, in 1985–86. Oysters are filter-feeding molluscs that are susceptible to even low-level water contaminants. These may injure the oysters directly or accumulate either biotoxins such as sewage bacteria or some planktonic larvae, or inorganic poisons such as the heavy metals cadmium and mercury. The sheltered waters in which oyster farming occurs must therefore be isolated from industrial and urban runoff.

Squid are free-swimming molluscs represented by a diversity of species, sizes and habitats. Local species having commercial potential are up to 50 cm long and live in the upper layers of coastal waters. Squid are attracted to lights, a behaviour exploited by fishermen. Lures and multi-hooked jigs are then used to capture squid, although daytime purse seine netting has also been attempted. Although an extensive squid resource has been proven in Tasmanian waters, and partially exploited by foreign boats under licence, local exploitation of this valuable resource has as yet been minimal.

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Chapter 15

ENERGY

During 1984–85 the total energy consumption in Tasmania grew to nearly 85 petajoules. However, the rate of increase, at 1.5 per cent for the year, was minimal, reflecting the ongoing effects of national oil price increases in the 1970s and the recession of 1982–83.

15.1 TOTAL ENERGY CONSUMPTION, TASMANIA AND AUSTRALIA (petajoules)

Year	*Tasmania*	*Australia*
1960–61	39.1	1 336.6
1970–71	65.5	2 210.3
1980–81	83.7	3 146.1
1981–82	84.9	3 236.5
1982–83	82.5	3 120.5
1983–84	83.4	3 218.6
1984–85	84.7	3 367.1

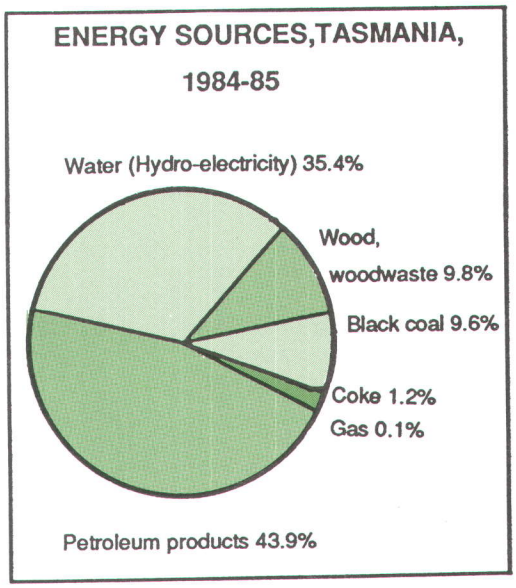
Source: Department of Primary Industry and Energy

The biggest user of energy continued to be the manufacturing sector, consuming 42 per cent of the total in 1984–85.

15.2 ENERGY CONSUMPTION, TASMANIA (petajoules)

Sector	*1983–84*	*1984–85*
Industry		
Agriculture	1.5	1.5
Mining	4.0	4.2
Manufacturing	33.7	35.2
Electricity, gas and water	5.1	4.0
Construction	1.2	1.2
Wholesale retail trade	1.9	1.9
Transport and storage	20.8	21.2
Communications, finance and business services	0.3	0.3
Public administration	0.3	0.3
Community services	1.0	1.0
Entertainment and personal services	0.5	0.5
Residential	12.0	12.1
Lubes, bitumen and solvents	1.3	1.4
Total	83.4	84.7

Source: Department of Primary Industry and Energy



The use of black coal and hydro-electricity as energy sources increased during 1984–85. However, the main source in most sectors still came from imported petroleum products.

15.1 PETROLEUM

Consumption of petroleum products in Tasmania decreased a further three per cent between 1985 and 1986 reflecting the continued national transition from oil to other fuels which commenced in the late 1970s. This trend is most apparent where petroleum products are used in stationary applications, for example industrial/ marine diesel oil and fuel oil.

15.3 CONSUMPTION OF MAJOR PETROLEUM PRODUCTS, TASMANIA (megalitres)

Product	*1984*	*1985*	*1986*
Petrol —			
Leaded super	392	419	421
Leaded standard	31	10	*
Unleaded	–	6	18
Total petrol	423	434	439
Liquefied petroleum gas	5	2	1
Aviation gasoline	3	3	3
Aviation turbine fuel	32	39	41
Kerosine	2	2	2
Heating oil	15	14	16
Automotive distillate	224	231	242
Industrial/Marine diesel fuel	21	25	10
Fuel oil	166	122	91
Total	891	872	845

* less than 0.1 megalitre.

Source: Department of Primary Industry and Energy.

Consumption of transport fuels continued to dominate overall consumption of petroleum products in Tasmania. In particular there has been a move away from the use of leaded super in favour of unleaded petrol as the number of new vehicles on the road increases.

Petrol Retailing

The Tasmanian petrol retail industry has been the subject of severe criticism over the past few years, particularly over the petrol roster system and petrol pricing.

The petrol roster system was established 25 years ago as a means of ensuring that the public had access to fuel for 15 hours a day, seven days a week, while providing service station proprietors with viable working hours and equity of business. The system continued successfully until recently when it came under attack from several organisations claiming that it was outmoded since the introduction of note acceptors and credit cards, and was partially responsible for Tasmania's high petrol prices in relation to other States.

As a result, the Legislative Council set up a select committee to inquire into the Tasmanian petrol retail industry. In 1986, the committee recommended that the roster system continue but that it should be modified to take into account changing social and trading patterns such as late-night shopping. The report also noted that the roster system had very little influence on petrol prices in the State, accounting for only 0.6 to 1 cent a litre of retail prices.

15.1.1 Petroleum Exploration

All Tasmania's petroleum is imported from interstate refineries to bulk depots at Hobart, Bell Bay and Devonport. During 1985–86 intensive exploration in Bass Strait led to speculation that Tasmania could provide enough oil and gas to meet its own requirements. Exploratory wells were drilled in the Bass Basin area off shore from Burnie with mixed results by two consortia, Amoco Australia and Bridge Oil Ltd.

15.4 WELLS DRILLED, TASMANIA 1985–86

Name	*Depth*	*Status*
Yolla 1	3 347 m	Plugged and abandoned
Tilana 1	3 900 m	Plugged and abandoned with shows
Koorkah 1	3 149 m	Plugged and abandoned
Chat 1	3 104 m	Plugged and abandoned
Seal 1	1 670 m	Plugged and abandoned
Pelican 5	4 627 m	Plugged and abandoned with shows

Source: Director of Mines, Report 30 June 1986

Yolla One showed good flows of oil and gas, and drillstem tests at Tilana One were inconclusive but hopeful. Pelican Five was the deepest well drilled in the basin. Gas shows were encountered but only one significant flow was discovered. The well was plugged and abandoned in April 1986.

During the year $75 million was spent on drilling, the highest amount ever spent in exploring the Tasmanian offshore area. In January 1986 the then Minister for Mines Mr Roger Groom announced that the Government would appoint a petroleum engineer to head a team designed to advise the Government on the exploration work. The Petroleum Division of the Department of Mines was then established, its major aims being to promote oil and gas exploration in Tasmania and its waters, and to inform the Director of Mines on all matters which could influence the petroleum industry.

Exploration during the year proved that hydrocarbons are present in the Bass Basin, and in reasonable quantities. However, the results did not live up to expectations. In addition there was a shock decrease in world oil prices during the year. As a result further development in the area was suspended until it became clear that drilling would be economically viable.

15.2 ELECTRICITY

Tasmania's electricity requirements are provided by the Hydro-Electric Commission from a system based almost entirely on hydro installations. The total installed generator capacity at June 1987 was 2.171 million kW of which 89 per cent (1.9 million kW) was supplied by an integrated hydro network. An oil-fired thermal station of 240 000 kW is located at Bell Bay.

During the 1986–87 financial year total energy generated was 8 319 million kWh, a decrease of 0.1 per cent on the previous year. Total sales amounted to 7 681 million kWh of which 64 per cent was sold to the major industrial sector.

15.5 ELECTRICITY SALES, TASMANIA (million kWh)

Purpose	*1986–87*
Residential	949.6
Industrial	484.6
Hot water	591.9
Off peak	279.7
Lighting	117.8
Commercial	219.7
Bulk commercial	82.4
Major industrial	4 944.1
HEC villages, unread meters	11.1
Total	7 681.0

Source: Hydro-Electric Commission Report

Consumption by the major industrial sector decreased by 1.7 per cent in 1986–87 due to furnace upgrading at Temco and industrial problems at Savage River Mines at Port Latta. However, sales to commercial consumers increased by 10 per cent following an increase of 2.7 per cent in the number of customers in that category.

15.6 ELECTRICITY CONSUMERS, TASMANIA

Consumers	*1986*	*1987*
Residential	165 435	168 796
Public utilities	4 620	4 749
Industrial	16 888	16 968
Commercial	14 898	15 300
Major industrial	17	17
Miscellaneous	1 631	1 668
Total	203 489	207 498

Source: Hydro-Electric Commission Report

Water storage levels improved during 1986–87 following a slightly wetter than average year. Energy storage at 30 June was 48.6 per cent of full capacity, 11.4 per cent better than the previous year. The improvement was also a consequence of increased generation from the Pieman Scheme which enabled replenishment of the Lake Gordon and Great Lake storage areas.

Hydro-Electric Commission trading operations resulted in a loss of $4.3 million for the year 1986–87, offset to some extent by the $10 million profit made in 1985–86. Income for the year at $292.4 million was 14.1 per cent higher than the previous year. Retail customers contributed $189.6 million while sales to the major industrial sector accounted for $91 million. Miscellaneous income amounted to $3.2 million. A total of $8.5 million was collected and paid into consolidated revenue by way of the government surcharge.

Changes to Hydro-Electric Commission

During 1987 the Hydro-Electric Commission became the subject of major structural and operational changes. In July legislation was passed to give the Commission a more flexible and up-to-date corporate structure, and to expand its activities to allow utilisation of its skills and expertise while continuing its primary objective of generating and supplying electricity.

The legislation provided for the creation of a separate trading entity called the Hydro-Electric Commission Enterprises Corporation. The corporation would enable the Commission to tender for work both in and out of the State not presently undertaken by Tasmanian firms, thus diversifying and making use of its technical expertise.

The legislation also altered the executive of the Commission, changing the structure from one commissioner and four associate commissioners to a total of six commissioners, with one being appointed as General Manager and one as Chairman. Following enactment in July 1987 Mr R.J. Harvey was appointed Acting General Manager and Sir Geoffrey Foot was appointed Chairman.

Mr Harvey had been Acting Commissioner following the retirement of Mr J.R. Ashton on 23 February 1987. Mr Ashton joined the Commission in 1947 as a junior engineer and spent ten years as the Commissioner.

On 16 December 1987 the Premier announced that Sydney business consultant, Mr Donald Williams, would become the new General Manager of the Commission from 8 February 1988.

Operating expenses increased by 3.5 per cent to total $80.9 million while financial charges rose

by 31.7 per cent to $178.8 million. This increase was mainly due to the interest charges on the Pieman River Power Development being transferred virtually in full to the trading account, rather than being in part capitalised as was the case prior to completion of the development.

During the year $152.6 million was spent on capital works bringing total capital expenditure to $1.9 million.

15.7 HYDRO-ELECTRIC COMMISSION CAPITAL EXPENDITURE, 1986-87

Project	*$ million*
Pieman River Power Development	15.047
Anthony Power Development	34.031
King River Power Development	54.538
Gordon Power Station, No. 3 Machine	10.200
Bass Strait Islands Power Stations and Reticulation	0.999
Power Station Extensions	1.986
Substations	6.758
Transmission Lines	3.338
Distribution System and Services	13.162
Sundry Buildings	3.044
Stores, General Plant, etc.	8.990
Construction Equipment	0.535
Total	152.628

Source: Hydro-Electric Commission Report

15.2.1 Major Construction Projects

1986–87 was another intense year for civil and electrical engineering construction activity on the West Coast by the Hydro-Electric Commission. Major projects included progress on the King and Anthony schemes, and the completion and official opening of the Pieman scheme. This power project added 16 per cent to the State's generating capacity and cost about $690 million. It took 13 years to build.

Good progress continued on all schemes under construction although 1 221 man days were lost due to industrial action. The Construction Division Workforce continued to decline in numbers, falling by 232 to 1 158.

Lower Pieman

The installed capacity of the State's power generating system was increased to 2 171 MW, with the commissioning in February 1987 of the second 115.6 MW machine at Reece Power Station. Commissioning was completed in a record nine days from water on to power on. Soil stripped from work sites and soil won from the bed of the area now occupied by Lake Pieman was spread over quarries, roads, campsites and storage areas no longer required. Re-vegetation work was commenced. The Governor, Sir James Plimsoll, formally opened the Pieman River Power Development on 1 May 1987.

King River

On the site of the King River Power Development, excavation was completed to the assembly bay level. The Station is situated on the left bank of the King River and will house a 144 MW hydro-electric generating set. It is due for completion in 1991.

On the other side of Mt Jukes, excavation continued on the seven km long headrace tunnel which will be used to carry the waters of the new Lake Burbury to the generating plant. The tunnel is being drilled by an 85 tonne jumbo rig which was fabricated in Tasmania at Somerset and assembled on site. During 1986–87 the tunnel length advanced by more than one km.



Jumbo drill, weighing 85 tonnes and costing $1.2 m, used on the King headrace tunnel. Photo: *Advocate*

At the Crotty damsite on the King River, a diversion tunnel to carry the river while the dam is built, reached an advanced stage of construction. The first 200 m of the tunnel was driven and work on concrete lining commenced.

Anthony

The Anthony Power Station is scheduled for completion in 1993. The development features an underground power station close to Lake Murchison which is part of the Pieman River Power Development. When completed this station will house one 82.8 MW hydro-electric generating set. During 1986–87 most investigation work for the 6 km long Anthony Tunnel and associated underground power station was completed.

The Anthony Road was also completed and largely sealed. This 38 km road links the Murchison Highway near Tullah with the Lyell Highway north of Queenstown and gives good access to all work sites on the scheme.

Construction began on White Spur Dam and most excavation of the dam and spillway was completed. The Henty River diversion was completed and construction of a concrete gravity dam about 25 per cent finished.

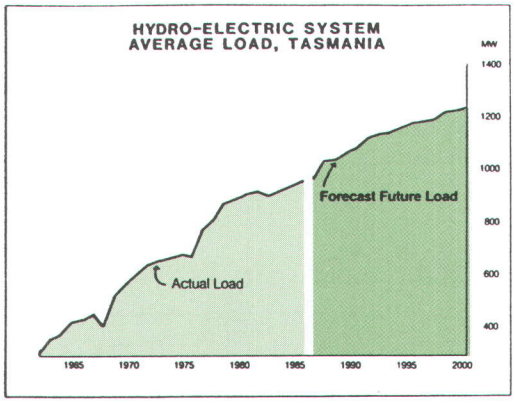
At Newton good progress was made on the damsite, pumping station and rising main. The pumping station is due for completion in 1989 and will incorporate three pumps, each capable of moving three cubic metres of water a second.

Gordon Power Station - 3rd Machine

At the existing Gordon underground power station, design work for installation of a third 144 MW hydro-electric generating set was virtually completed and construction work three quarters completed by June 1987.

15.2.2 Future Expansion

Overall assessment of long term growth in annual electricity loads has confirmed the somewhat lower average growth rate indicated by earlier studies. The average annual rate of growth forecast from 1987 to 2000 is 1.86 per cent.



Source: Hydro-Electric Commission Report

Consequently it is expected that the level of load in the immediate future will be economically met from existing and planned hydro developments without recourse to significant use of the Bell Bay oil-fired thermal station.

Forecasts of load levels and expansion needs aimed at assessing the best program for system expansion from the mid 1990s and beyond, are continually being reviewed by the Commission. During 1986–87 investigations continued on the remaining available hydro schemes including the Que South, Lower King, Lake Margaret and Lake Augusta schemes. In addition collection and analysis of wind and wave energy and environmental data in respect of thermal generation were continued at selected sites.

15.2.3 Energy Planning

The Hydro-Electric Commission continued investigation of the State's energy resources in 1986–87. This included estimation of the costs of extracting various energy materials and the examination of processes for converting them into useful fuels. Further studies were completed covering black coal and liquid fuels from oil shale and oilseeds. Progress was also made on studies covering the extraction of energy from wastes and liquid fuels from brown coal.

During the year progress was also made on preparation of a series of reports on various aspects of energy conversion and utilisation.

The first of these will cover the feasibility of using battery-powered electric vehicles in Tasmania.

The Commission continued to represent the State on national committees concerned with various aspects of fuel supply. These included the National Petroleum Advisory Committee, the National Fuels Emergency Consultative Committee, and the National Oil Supplies Advisory Committee. The Commission is also represented on the AMEC Working Group on Alternative Fuels, which was established during the year to report on possible sources of transport fuels for Australia in the future.

15.3 COAL

Approximately 10 per cent of Tasmania's energy is derived from coal. Although substantial deposits exist throughout Tasmania, particularly in the Fingal Valley in the north-east, the quality is not as high as NSW coal. Nevertheless, over recent years, coal has been increasingly used as a fuel source for industry.

The Cornwall Coal Company, the State's only producer, is currently producing and selling 350 000 tonnes per annum from the Duncan colliery near Fingal and the Blackwood colliery at Mt Nicholas, near St Marys. It supplies coal to Associated Pulp and Paper Mills Ltd, Australian Newsprint Mills Ltd, Goliath Portland Cement Company Ltd, Edgell-Birdseye (Division of Petersville), Wander (Australia) Pty Ltd, Tasmanian Breweries (Cascade), Cadbury Schweppes Pty Ltd, Royal Derwent Hospital, and Tioxide Australia Pty Ltd.

15.4 WOOD

The use of wood as an energy source for domestic heating has been growing steadily over recent years. In 1987, 53 per cent of all Tasmanian households used wood as the major source of space heating. This represents a 25 per cent increase since 1975.

15.8 HOUSEHOLD HEATING (per cent)

Energy source	*August 1975*	*October 1985*	*July 1987*
Electricity	12.2	31.8	32.3
Wood	42.7	51.5	53.3
Oil	36.5	11.9	9.8
Gas	2.8	4.1	3.7
Other (*a*)	5.9	*	0.8

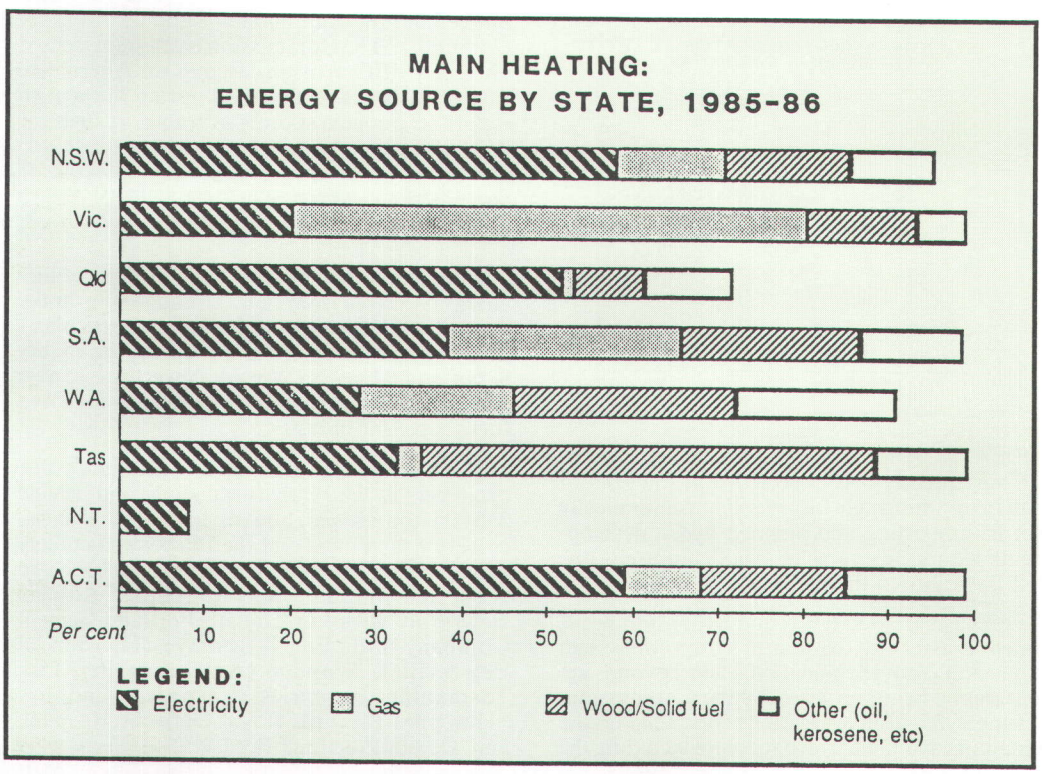
(*a*) includes households stating 'no heating'.

This trend has been linked to rising oil prices; it may also be at least partly due to recent improvements in the efficiency of wood burning heaters. Certainly, import figures show a demand for solid fuel space heaters with New Zealand being the main supplier. In 1987, 63 700 of the 85 500 Tasmanian households that used wood as the main form of heating had either a slow combustion heater, pot belly, or simple box stove.

Domestic consumption of firewood was an estimated 653 000 tonnes during the twelve months to July 1987. Of that just over half was purchased and the remainder collected.

To date, supply at source (if not always in the yards) is considered to be plentiful, although at some distance from the major population centres. It has been estimated that at least two million tonnes of logging residues per year are available, mainly in State forests some 50 to 100 km from Hobart and Launceston. The Forestry Commission provides licences permitting the collection of firewood from Crown land. In addition the Commission provides designated 'free firewood' areas for advertised periods during the summer as part of a campaign to educate consumers to collect or buy their firewood in the summer when it is easier and cheaper to collect.

In 1986 the Hydro-Electric Commission completed a study on wood as a source of energy. The report concluded that despite expected price rises



in future, use of firewood for residential heating would remain attractive. In commercial and industrial applications it noted that wood has a number of advantages over coal and fuel oil including availability and lower levels of ash for disposal. Combined with a relative stability in price it is therefore expected that in future, more enterprises will make the decision to change over to wood-fired equipment for industrial heating and steam raising.

15.5 ENERGY RESEARCH

15.5.1 Hydro-Electric Commission

Wind Energy

An investigation partly funded by National Energy Research Development and Demonstration Council (NERDDC) of the potential use of wind power energy was completed by June 1987. Later in the year negotiations were underway with a company planning to build and operate a wind turbine generator on Flinders Island. The Hydro-Electric Commission was considering connecting the generator to the island's electricity grid and purchasing the energy for use in conjunction with its own system.

Solar Electric Water Heating

The continuing program of field and laboratory testing at the Moonah Laboratories indicated that, in suitable locations, the solar contribution could be sufficient to replace up to 45 per cent of the energy needed for normal domestic hot water heating.

Heat Pump

A commercially available heat pump was installed in a private residence and its performance monitored during 1986–87. The aim is to evaluate savings which may be achieved with a heat pump compared with resistance or storage heating. Monitoring will continue for another year or two.

Energy Conservation

The Energy Management Centre has been awarded a NERDDC grant to demonstrate integrated control to minimise energy use at the East Devonport factory of United Milk Tasmania. This is a continuation of the computer-based monitoring system which was installed and commissioned by the Centre the previous year.

Wave Power

The Commission's Civil and Electrical Engineering Branches held discussions with organisations involved in the design and manufacture of wave power plant systems. Information was provided to enable the organisations to determine conditions under which a wave power plant could be economically installed and connected to the Commission's system.

Customer Load Pattern Survey

Research equipment developed by the Commission's Load Research Section has attracted keen interest from other electricity supply authorities. The Electricity Trust of South Australia has decided to buy 50 of the load research data logger units and samples, and specifications have been sent to Victoria, New South Wales, Queensland and Western Australia.

The loggers were designed and made for use in a survey of the way residential customers use their electricity supply. No comparable equipment was commercially available. During the year 81 units were installed throughout Tasmania. The householders were interviewed so that their load pattern could be related to their appliance use and other factors.

The survey aim was to assess electricity load characteristics, including the likely growth, to assist future design and planning of the whole electrical network.

15.6 ENERGY MANAGEMENT

The Hydro-Electric Commission operates an Energy Management Centre with the objective of providing advice on all energy uses to the industrial, commercial and public sectors. Advice is based entirely on the best economic interests of the client and frequently results in significant savings of electricity and other energy consumption.

The Centre completed 12 energy-use assessments for industrial customers during 1986–87 including an assessment of the energy efficiency in essential oil production for the Tasmanian Development Authority, and assisting three sawmills to improve combustion performance of their wood-fired boilers.

As a result of advice from the Centre a number of industrial undertakings have found it practical and economical to switch from oil to wood fuel for steam raising. During the year, six companies made the change and another four were considering a change.

The Government Energy Management Program, in its fifth year, made savings of more than $2 million from the total State Government fuel and electricity bill of $26 million. Particular attention was paid to the correct adjustment of time switches in school heaters. This has the potential to save about $150 000 a year.

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Chapter 16

MANUFACTURING

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Chapter 16

MANUFACTURING

At November 1987 an estimated 26 700 persons were employed by manufacturing industries in Tasmania. This was almost 14.5 per cent of the estimated total number of people employed in the State, 184 300.

Despite a drop of about 6 000 since the early 1970s employment in manufacturing at about one in seven employed Tasmanians in 1987, was almost twice as many as were employed in agriculture, forestry, fishing and hunting, and of the order of nine to 10 times the number employed in mining.

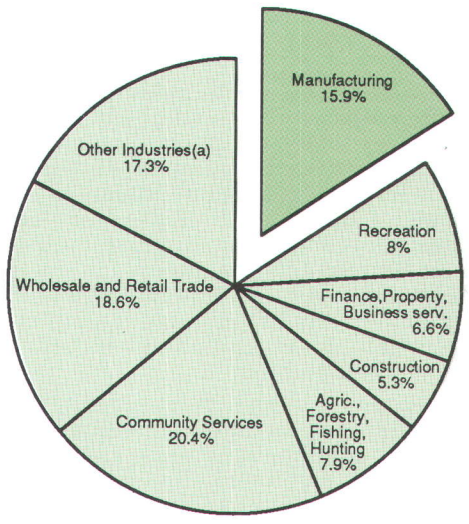
Manufacturing's contribution to the State's economy over recent years has been consistent. During the period 1977–78 to 1983–84 manufacturing has provided between 18.2 per cent and 20.3 per cent of the State's gross domestic product. In 1983–84 it was almost three times the contribution made by agriculture, and six times that of mining; the only industry sector to exceed manufacturing in 1983–84 was public administration, defence and community services which contributed 20.2 per cent. Nevertheless, the value of manufacturing has declined slightly in real terms since 1979–80.

16.1 VALUE OF MANUFACTURING, TASMANIA

Year	*Current Values*	*1979–80 values (a)*
1979–80	653 770	653 770
1980–81	713 445	653 515
1981–82	713 091	593 810
1982–83	695 135	522 778
1983–84	837 710	590 717
1984–85	937 933	631 261

(*a*) Current values adjusted using the Consumer Price Index for Hobart.

INDUSTRY EMPLOYMENT, 1987



(a) Includes mining,transport and storage communications,public administration and defence.

In 1984–85 manufacturing produced an increase in its value over and above the rise in general price levels as measured by the consumer price index. Value added increased by 12.0 per cent over that for 1983–84 while turnover went from $2 220 463 in 1983–84 to $2 422 890 in 1984–85, an increase of 9.1 per cent.

16.2 MANUFACTURING, TASMANIA

Particulars	*Unit*	*1983–84*	*1984–85*
Establishments operating at 30 June (*a*)	number	558	575
Employment (*b*) (average over whole year) —			
Males	number	19 857	19 902
Females	number	4 640	4 592
Persons	number	24 497	24 494
Wages and salaries (*c*)	$'000	414 330	442 988
Turnover	$'000	2 220 463	2 422 890
Stocks —			
Opening	$'000	323 638	321 354
Closing	$'000	329 771	385 318
Value added	$'000	837 710	937 933
Fixed capital expenditure less disposals	$'000	61 219	52 279

(*a*) Excludes single-establishment enterprises with fewer than four persons employed.
(*b*) Includes working proprietors.
(*c*) Excludes the drawings of working proprietors.

16.1 INDUSTRIES

Tasmanian manufacturing industry has a significant reliance upon forests. Industries, whose raw material for manufacture is logs and timber off-cuts, in 1984–85 accounted for 37.7 per cent of the total value added by Tasmanian manufacturing industry and 35.1 per cent of the number of persons employed in manufacturing over the year. Industries included in this forest based manufacturing category are log sawmilling, resawn and dressed timber, veneers and manufactured boards of wood, hardwood chips, pulp, paper and paperboard.

The largest single industry group is that of food and beverages. This group accounts for 23.5 per cent of employment in the manufacturing sector, and contributes 22.6 per cent of the total value added.

Several industry groups increased their value added at a significantly higher rate from 1983–84 to 1984–85 than the overall increase in value added for the manufacturing industry. The most notable of these was the clothing and footwear group. In 1984–85 value added by this industry group was 66.4 per cent higher than in 1983–84. However this industry group is only a small component of the Tasmanian manufacturing industry; in 1984–85 it employed 1.5 per cent of the persons employed in manufacturing and its value added was less than one per cent of total value added by manufacturing. Likewise the other machinery and equipment group increased its value added by 21.5 per cent but employed only 2.9 per cent of total persons employed in manufacturing and accounted for only 2.1 per cent of total manufacturing value added. The paper, paper products, printing and publishing industry group, which employed 21.7 per cent of all those employed in manufacturing and accounted for 22.8 per cent value added by manufacturing, increased its value added by 17.3 per cent and employment by 6.1 per cent. The wood, wood products and furniture group increased employment by 6.4 per cent in 1984–85 compared with 1983–84.

16.3 MANUFACTURING, TASMANIA, 1984–85

Industry	*Employment*	*Value added $'000*
Food and beverages	5 752	212 170
Paper, paper products	5 323	214 122
Wood, wood products and furniture	3 276	139 508
Basic metal products	3 364	n.p.
Textiles	n.p.	n.p.
Clothing and footwear	370	7 384
Fabricated metal products	1 487	38 010
Chemical, petroleum and coal products	n.p.	n.p.
Transport equipment	605	23 715
Non-metallic products	836	46 060
Other machinery and equipment	720	19 977
Miscellaneous manufacturing	374	13 170
Total manufacturing	24 494	937 933

16.4 MANUFACTURING PERFORMANCE, TASMANIA, 1984–85

Industry group	*% change 1983–84 to 1984–85*	
	Employment	*Value added*
Food and beverages	–4.5	4.6
Textiles	n.p.	n.p.
Clothing and footwear	63.0	66.4
Wood, wood products and furniture	6.4	12.3
Paper, paper products, printing and publishing	6.1	17.3
Chemical, petroleum and coal products	n.p.	n.p.
Non-metallic mineral products	2.7	17.2
Basic metal products	1.2	n.p.
Fabricated metal products	–3.8	4.2
Transport equipment	–32.3	–7.9
Other machinery and equipment	8.9	21.5
Miscellaneous	–1.1	11.1
Total	1.8	12.0

16.1.1 Manufacturing Companies

Selected descriptions by the Tasmanian Development Authority.

Food and Beverages

Cadbury Schweppes Australia Ltd (Claremont): In 1921 an association of three British confectioners established their Australian plant at Claremont, near Hobart. Today, the plant is the largest cocoa and confectionery factory in Australia. The factory employs some 700 Tasmanians and specialises in moulded chocolate blocks, fancy boxed assortments, cocoa, drinking chocolate and the well known Flake and Turkish Delight bars. Some 30 million litres of fresh Tasmanian milk are used each year, most of which is collected and processed at a subsidiary dairy factory at Burnie. Large quantities of famous Cadbury Dairy Milk Chocolate are sent each year to the company's sister factory in Victoria.

Cascade Group of Companies (Statewide): The company is the oldest manufacturing company in Australia and is firmly established in the beverage industry at manufacturing, wholesale and retail levels. The Company manufactures alcoholic beverages through the only two breweries in the State: at Esk Breweries, Launceston (Boags Beer) and Cascade Brewery, Hobart (Cascade Beer). The Cascade Fruit Juices Division manufactures alcoholic cider under the brand names *Mercury* and *Van Diemen*, and also *Apple Isle* non-alcoholic cider, *Ultra-C* blackcurrant vitamin C syrup, soft drinks, pure fruit juices, fruit juice syrups, berry fruit pulps and concentrates for local and export distribution at Cascades, Hobart. The wholesaling of wine and spirits is the largest operation in the State with major outlets in Hobart, Launceston and Ulverstone. The company owns 44 hotels spread throughout the State, the majority of which are leased to individuals.

Edgell-Birds Eye Division of Petersville Industries Ltd (Devonport, Ulverstone and Scottsdale): This company is Tasmania's leading processor of frozen and canned vegetables. The annual volume of raw materials required by the Devonport, Ulverstone and Scottsdale factories is approximately 207 000 tonnes, the main crops processed being potatoes, green peas, green beans and carrots.

McCain Foods (Aust) Pty Ltd (Smithton): McCain purchased the Smithton factory of General Jones in June 1984. The factory produces frozen vegetables, of which the main brands are Copper Kettle, Pict and McCain. A new plant in Circular Head employing 100 people is planned to commence in early 1988.

United Milk Tasmania Ltd (Smithton, Edith Creek, Wynyard, Devonport, Legerwood): This is the State's largest manufacturer of dairy products and processes approximately 60 per cent of the milk produced in the State. Annual production in 1986–87 was approximately: butter (salted and unsalted), 5 700 tonnes; cheese (cheddar), 9 600 tonnes; milk powders (skim, full cream and buttermilk), 7 300 tonnes; casein (acid), 330 tonnes; whey proteins (35 per cent, 50 per cent and 75 per cent), and whey powder, 1 500 tonnes. The company also produces milk concentrates and operates retail produce/hardware stores and a farm machinery business servicing rural areas.

Paper, Paper Products

Associated Pulp and Paper Mills (Burnie, Wesley Vale, Long Reach, Triabunna): This group of companies which is a wholly-owned subsidiary of North Broken Hill Holdings Ltd, is a major Australian integrated forest products complex and Australia's principal producer of fine printing and writing papers, magazine papers and coated papers. In Tasmania, the Company operates major manufacturing complexes at four centres: *Burnie* — where it commenced paper production in 1938; present annual capacity of the Burnie pulp and paper plant is 130 000 tonnes. In addition, the company presently has three sawmills at Burnie and Wynyard through its wholly owned subsidiary company, Burnie Timber Pty Ltd, but at present, only two are operating. The company also acquired, in 1979, Tasmanian Plywood Mills Pty Ltd which is based at Somerset. *Wesley Vale* — In 1970 the first stage of an integrated pulp and paper complex was completed when the first paper machine commenced production. The machine has an annual capacity of about 65 000 tonnes of paper. Production at Wesley Vale is mainly of magazine papers. A particle board factory, run by the subsidiary Burnie Timber Pty Ltd, also operates at Wesley Vale; annual production is about 15 million square metres. *Long Reach* — APPM completed its woodchip plant and made its first export shipment in 1972. The company has long-term contracts for the export of woodchips to Japan. *Triabunna* — In 1979 APPM took over Tasmanian Pulp and Forest Holdings Ltd which operates a woodchip export mill at Triabunna and also has long-term contracts with Japan.

Australian Newsprint Mills Ltd (Boyer): Since beginning operations in 1941, this company has increased its annual production of newsprint from 27 400 tonnes to its present capacity of 220 000 tonnes in Tasmania. The company also operates a newsprint mill at Albury in New South Wales with an output of 180 000 tonnes

per annum. ANM is Australia's only producer of newsprint and currently supplies approximately 55 per cent of Australia's requirement. The Boyer plant is being constantly upgraded and its product range expanded beyond standard newsprint. This is requiring continuing capital expenditure to improve product quality and productivity involving major rebuilding of two of the paper machines. ANM is the largest company with its head office in Tasmania and indicates that there is an optimistic future for expansion of its operations in this State.

Basic Metal Products

Comalco Aluminium (Bell Bay) Ltd (George Town): Australia's first aluminium smelter commenced production in 1955 at Bell Bay, owned by the then Australian Aluminium Production Commission, a joint venture of the Commonwealth and Tasmanian Governments, with an annual capacity of 12 000 tonnes of metal. In 1961, the plant and facilities were acquired by the present company and the capacity increased in stages to 117 000 tonnes per annum, with a current employment of 1 270. Products made include rolling block, extrusion billet, foundry alloy ingot, T-bar alloy, and primary metal as ingot, T-bar, and granules. As associated company, Comalco Aluminium Powder, produces aluminium powder, aluminium paste, and high alloy metal powder briquettes.

Electrolytic Zinc Company of A/Asia Ltd (Risdon and Rosebery): Established in 1916, the factory at Risdon is the largest producer of zinc in Australia and the second largest electrolytic-zinc plant in the world. It exports an extensive range of zinc and zinc alloys to over 30 countries. The Risdon plant has the capacity to produce more than 600 tonnes of zinc per day. Apart from the zinc and zinc alloys, the Company also produces cadmium, sulphuric acid, superphosphate, and ammonium sulphate. The zinc plant supplies a large proportion of Australia's total requirements. The company has commenced a major modernisation program to be completed by 1992.

Mine production capacity at the company's West Coast mines at Rosebery is 650 000 tonnes of silver-lead-zinc-copper-gold ore per annum. The associated concentrating mill at Rosebery has capacity to treat 850 000 tonnes of ore per annum including treatment of ore from the Que River mine.

Tasmanian Electro-Metallurgical Co. Pty Ltd (Bell Bay): In 1962 BHP transferred its major alloy making from Newcastle to a green field site at Bell Bay. Expansion in 1976 gave export capacity and added ferro-silicon and manganese ore sinter to the existing product range of high carbon ferro-manganese and silico-manganese. A significant proportion of production is being exported to steelmakers and foundries in South East Asia, the Middle East, Japan, United States of America and New Zealand. The company completed a $57 million capital works program in 1987 to increase output by 40 per cent.

Tioxide Australia Pty Ltd (Burnie): This company is a manufacturer of titanium pigments which are used as the base white pigment in paints, enamels, plastics, printing inks, rubber, paper, man-made fibres and a number of other products. At the present time, 10 different grades of pigment are made to meet the varying requirements of user industries. The company was formed in 1937 as Australian Titan Products Pty Ltd. Plans for construction of the Heybridge plant were delayed by the Second World War and the factory was commissioned in December 1948. The initial annual output was 1 500 tonnes compared with a current capacity of 32 000 tonnes. The company has recently undergone a $23 million capital works program increasing production to 52 500 tonnes per annum. Tioxide is the predominant supplier of titanium pigments to the Australian market and an increasingly significant supplier to South-East Asian countries. A staff of approximately 365 was employed in mid-1984.

Textiles, Clothing and Footwear

Coats Patons (Aust.) Ltd (Launceston): This company first produced yarns in Tasmania over 60 years ago. The factory produces knitting yarns, both wool and synthetic, and annual production is approximately 1.5 million kilograms.

Sheridan Textiles (Derwent Park): Formerly known as UTA Hobart, then Sheridan Domestic Textiles. It is part of the clothing, footwear and textile group of Dunlop Olympic Ltd. The Derwent Park mill commenced operations as Silk & Textile Printers Pty Ltd in 1948. Production now involves the preparation, dyeing and printing of mainly polyester/cotton percale bed sheeting along with some commission printing. The mill also manufactures a full range of quality made-up domestic bed linen and shower curtains for Australian and export distribution.

Tara Towels (Devonport): This company is a branch of Bonds Industries Pty. Ltd. specialising in the manufacture of terry towelling. The company took over National Textiles which was previously Tootal Australia Pty. Ltd.

Fabricated Metal Products

Humes Ltd (Statewide): The Company operates three divisions in Tasmania: Humes Concrete, producing pre cast concrete; Humes

Plastics, manufacturing UPVC and high density polythene pipes and fittings for a wide range of uses; and Humes—ARC, producing prefabricated reinforcement mesh and rod. *Tristeel Engineering Pty Ltd.* This company was formerly Steel Mains Pty Ltd, a subsidiary company of Humes Ltd manufacturing water, steam and oil lines up to six metres in diameter. It also produces pressure vessels, spheres, bulk storage tanks etc. A field crew operates throughout the State installing all types of structural steel, pipelines and mechanical items.

ACL Bearing Company (Launceston): This was formerly the Repco Bearing Co. which was established in 1949 to manufacture engine bearings for the Australian spare parts trade. The factory has since expanded and diversified its range of products and is now the only automotive bearing manufacturing company in Australia. The company also undertakes the manufacture of sintered products using powder metallurgy techniques.

Transport Equipment

International Catamarans Pty. Ltd. (Hobart)

International Catamarans, a partnership between a Hobart manufacturer and a Sydney marine architect, specialises in commercial aluminium catamarans. These vessels have speeds approaching those of hovercraft and hydrofoils but construction complexity and costs are much lower. Initially, vessels were constructed with displacement hulls immediately below the load carrying superstructure. This design has been supplemented over the last three years by wave-piercing craft having more streamlined, semi-submerged hulls and a more elevated superstructure. Passenger ferries comprise the main use for the craft although utility vessels such as oil rig tenders and light defence and patrol craft are also in service.

Manufacturing began in Hobart in 1977. The success of the design led to licensing of yards in other States, and in Asia, as well as the sale and exchange of related technology in Europe and North America. Recent years have seen local production extended not to greater numbers of craft, but to larger, higher quality vessels for export, including two 470-passenger ferries for the UK market.

The local workforce of around 45 persons, including full time subcontractors and apprentices, has almost doubled since 1984. Although worldwide employment on International Cata-

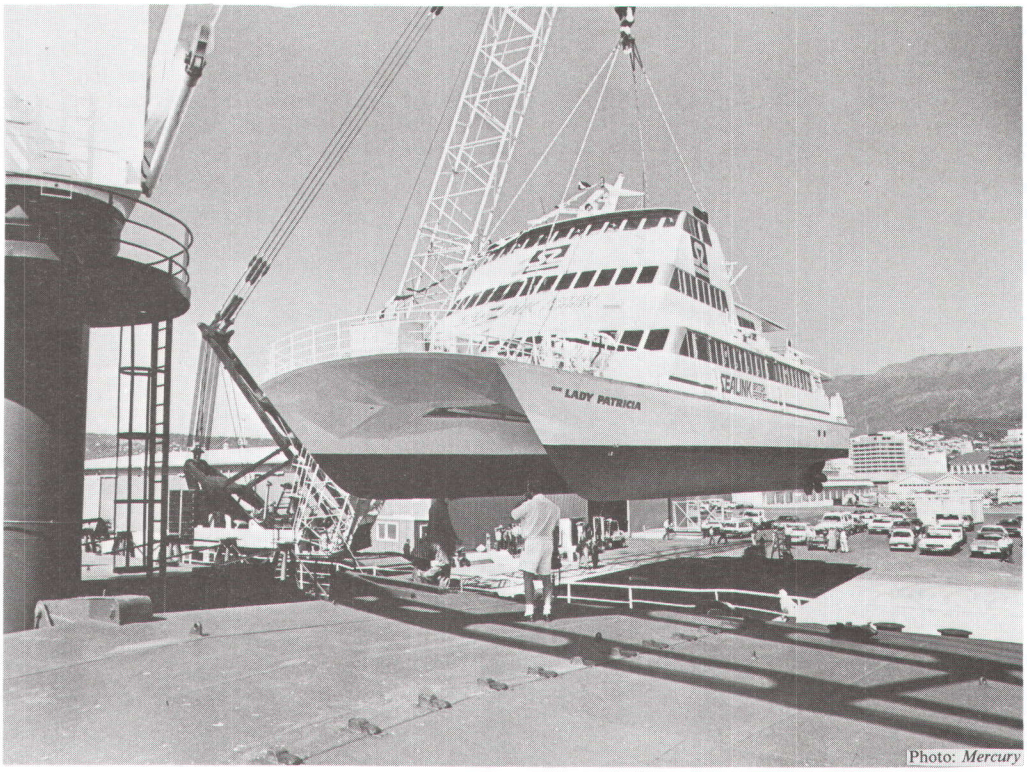


Photo: *Mercury*

marans designs is estimated at 1 000, growth of the enterprise locally is somewhat limited by a number of factors including availability of skilled personnel. Hobart is nonetheless seen as an ideal base from which developments can be tested and improved.

Wave-piercing models illustrate the advantages of the catamaran design generally. Streamlining allows both rapid and efficient running, with stability afforded by the breadth of the vessel. *Spirit of Victoria*, the first commercial wave-piercer, launched in mid-1985, operates as a passenger cruise vessel on Melbourne's Port Phillip Bay. An improved and slightly larger version now operates as a Queensland Barrier Reef ferry, and manufacture of a 50 metre vessel ordered for the English Channel trade has commenced. A 70 metre Bass Strait ferry of this class, currently being considered, would allow a daylight crossing and thus obviate the accommodation requirements of more conventional, but much slower, traditional ferries.

Another aspect of the company's research lies in the use of surface penetrating propellors in concert with modified hulls. Such designs would lessen the draught of catamarans, an important requirement in some situations. While still at a developmental stage, this type of concept illustrates the potential benefits of adapting an already innovative design to further applications having demonstrable demand on world markets.

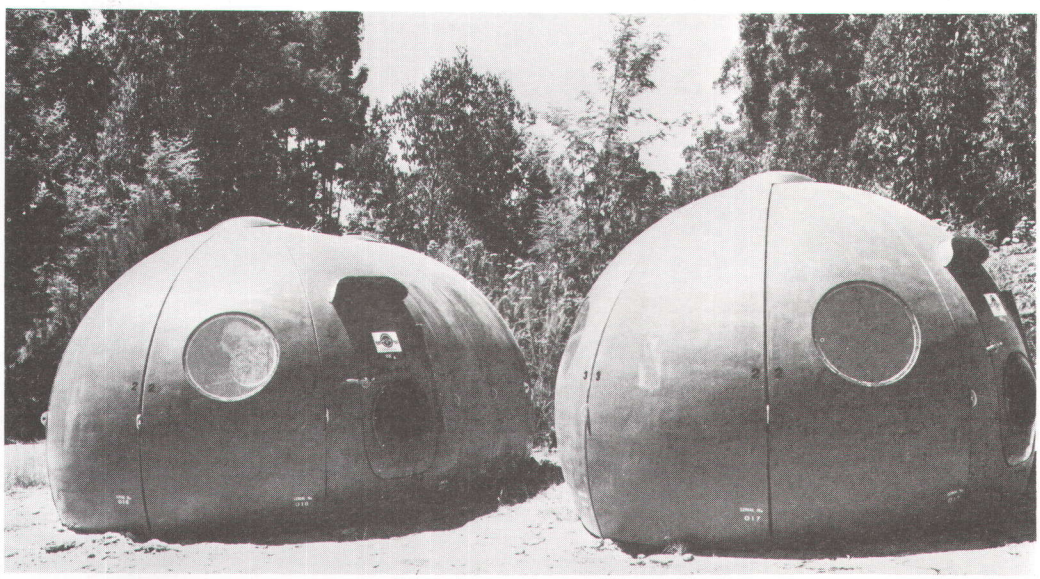
Non-metallic Mineral Products

Goliath Portland Cement Co. Ltd (Railton): This company is a wholly owned subsidiary of Goliath Cement Holdings Limited and has been involved in cement production in Tasmania since 1928. With installation, in 1980, of new plant and equipment using the most modern technology currently available, cement production capacity was lifted to 750 000 tonnes per annum. Plans are complete to install an additional plant to lift this capacity to one million tonnes per annum. The company operates its own 4 000 tonne ship the *M.V. Goliath* to transport bulk cement to mainland markets. Goliath has also been exporting palletised bagged cement to Papua New Guinea and other Pacific Island destinations since 1970.

Miscellaneous

Malcolm Wallhead and Associates (Kettering): A new small firm has gained worldwide recognition for developing and manufacturing a portable shelter for use in either polar or equatorial environments. The shelter, known as the "Igloo Satellite Cabin" is of glass-fibre construction, able to be sited on irregular terrain, and can be extended laterally using additional side and floor panels. It is designed to provide safe, reliable field accommodation for at least three people, is transportable by helicopter and can be erected by two people in less than one hour.

The igloo cabin was developed in 1982 by Malcolm Wallhead and tested in Antarctica during the 1982–83 southern summer by the Australian Antarctic Division. In 1983 a second cabin was deployed in the same area and in 1984 a fully assembled cabin was airlifted and flight tested over a range of air speeds up to 60 knots.



In January 1986 the Australian Antarctic Division ordered 10 Igloo Satellite Cabins, six of which were used to establish the new Edgeworth David Station in the Antarctic. The first export order came in March 1986 from the Scott Polar Research Institute, University of Cambridge, England. This was followed later in the year by orders from the National Marine Mammals Laboratory in Washington, and ITT-Antarctic Services in New Zealand. In July the Australian Antarctic Division ordered another 13 igloo cabins ready for the 1986–87 summer season.

In December 1986 Malcolm Wallhead and Associates received several acknowledgements of their success in manufacturing and marketing the Igloo Satellite Cabin including first Tasmanian winner of the Austrade Qantas Export Award for Initiative and Enterprise, a 'highly commended' small business award, and an Export Market Development Grant. The cabin qualified for a Design Registration Certificate and patents for specific features of the igloo were sought in Australia, USA, Canada and Europe.

During 1987 the business continued to expand to the extent that a full-time fibreglasser was employed to increase production of the components and ensure a steady supply of the product throughout the year. In August, design of a tropicalised version of the igloo cabin was completed resulting in a purchase by the Papua New Guinea Electricity Commission for use in the highlands.

By December 1987 Malcolm Wallhead and Associates had manufactured 51 Igloo Satellite Cabins, 46 for use by expeditioners from Australia, USA, Japan, West Germany, France, New Zealand and Green Peace International.

Further export enquiries had been received from Japan and Sweden and the firm had plans underway for the expansion of the business and production of new polar research equipment.

16.1.2 Size of Companies

Tasmania's manufacturing sector is dominated by small firms; only six per cent of the 880 establishments have a workforce of 100 or more employees. Contrarily, almost 80 per cent of the establishments have a workforce of less than 20. If small is beautiful, then the structure of Tasmania's manufacturing sector is probably ideal. Almost all industry groups comprise a majority of firms having a workforce of less than 50; the only exception is the textile group with six companies with more than 100 employees and five companies with a workforce of less than 50 employees.

16.5 SIZE OF MANUFACTURING ESTABLISHMENTS, TASMANIA, 1985

Number of employees	*Establishments*	
	Number	*%*
Less than 4	305	34.7
4–9	259	29.4
10–19	115	13.1
20–49	110	12.5
50–99	39	4.4
100–199	32	3.6
200–499	14	1.6
500–999	2	0.2
1000 +	4	0.5
Total	880	100.0

16.1.3 Manufacturing and Geography

The principal centres of manufacturing activity in Tasmania are situated in the Greater Hobart area in the south, Launceston–Tamar valley in the north and on the Burnie–Devonport coastal strip in the north-west. This decentralisation of Tasmanian manufacturing activity reflects the spread of Tasmania's population.

In the south the main manufacturing activity includes ore refining (mainly zinc), paper manufacture, confectionery production, brewing, footwear production, hand tool manufacture, glass bottle production, and fish processing. In 1987 the processing of silicon was added to the list of significant manufacturing activities in the south.

The main manufacturing activities in the north include aluminium production, manufacture of ferro silicon and ferro-manganese alloys, woodchip production, timber processing and textile production. On the north-west manufacturing activity is dominated by forest based industries, comprising mainly paper, sawn timber, and plywood and veneer manufacture. Other important manufacturing activity in this region includes vegetable processing, cement production, milk processing for cheese and butter, manufacture of titanium pigments for use in paint and enamel, and some textile production.

16.6 GEOGRAPHY OF MANUFACTURING, TASMANIA (%), 1985

Variable	*South*	*North*	*North-West*
Population	47.4	27.7	24.8
Establishments	39.1	34.7	26.1
Employment	39.5	32.1	28.4
Value added	41.6	28.6	29.8
Value added per head	$1 840	$2 168	$2 524

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Chapter 17

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Chapter 17

HOUSING AND CONSTRUCTION

Housing and construction, throughout man's history, have provided important economic and social records of human endeavour. Buildings that have survived provide a record of civilization, of man's achievements and failures, of dreams and values. From the thousands who laboured on the great pyramids of Egypt to the more modest construction gangs of today, building has provided an existence, if not always a living, to a significant proportion of the population. And whether it has been a primitive stone hut, a mud brick house, a palace, or an apartment on the waterfront, the quality and style of man's dwelling units has pointed to the degree of comfort, well-being and wealth of the surrounding community. In short, the provision of housing and the activity of construction are signposts to the life of any community. In many respects the housing and construction industry provides a window through which to gaze upon the life and standards of social man.

17.1 HOUSING

Tasmanians, as do other Australians, place great importance upon home ownership. The 1986 census revealed that 71 per cent of Tasmanian households had either bought, or were in the process of buying, their own home. This compares with a figure of 63 per cent in Britain, 73 per cent in New Zealand and 52 per cent in Sweden.

Within Tasmania, municipalities with the highest proportions of owner-occupied dwellings include Beaconsfield with 85 per cent, Huon with 84 per cent and Sorell with 83 per cent. Municipalities with the lowest proportions were Waratah with 10 per cent, Zeehan with 32 per cent and Brighton with 41 per cent.

17.1.1 Housing Trends, 1930–1987

Prior to the Second World War the typical Tasmanian family lived in a single-storey weatherboard home consisting of five or six rooms, and situated on about a quarter-acre of land (1000 sq. metres).

This style continued relatively unchanged until the 1950s and 1960s when substantial changes in building techniques and architectural style occurred. The traditional timber-clad weatherboard home gradually gave way to a building with brick or brick veneer exterior walls. In



Launceston General Hospital extensions Photo: *Examiner*

1954–55, 75 per cent of all houses commenced were of weatherboard construction; twenty years later in 1974–75, this figure had dropped to 5 per cent.

Architecturally, this period saw the beginnings of a trend in urban areas towards the flat, apartment or 'home unit' in a block of such dwellings arranged in a courtyard or terrace fashion.

The 1970s brought further changes in lifestyles and housing patterns. Increased affluence, mobility and leisure time enabled many people to experiment with rural-residential living. This period saw the growth of a new feature, the 'five-acre block' situated within an hour's drive or less of a major population centre.

More recently Tasmania has shared in the world-wide fashion for the renovation of nineteenth century urban architecture for domestic use. As much of Tasmania's long-neglected domestic architectural heritage is of this period, the State has benefited greatly from this revitalisation of its Georgian and early Victorian buildings.

Brick and brick veneer continued to dominate residential construction with 81.7 per cent of commencements adopting this mode in 1986–87. This compares with 79.2 per cent at the time of the 1981 census.

17.1 CONSTRUCTION MATERIAL OF NEW HOUSES, TASMANIA, 1986–87

Cladding material	*Number*	*Number as proportion of total (per cent)*
Double brick, stone and concrete	152	5.7
Brick veneer	2016	76.0
Fibre cement	93	3.5
Timber	332	12.5
Steel	21	0.8
Aluminium	3	0.1
Other	30	1.1
Total	2647	100.0

A notable trend in housing construction over the last two years is that despite the continuing popularity of the traditional brick-veneer, tile-roofed house, an expanding interest has been shown in alternative designs. Steel framing and timber framing for houses are becoming increasingly competitive. Alternative roofing materials and internal finishes are other areas of increasing change and are indicative of a changing era in house design and requirements for future years.

17.2 ROOF MATERIAL OF NEW HOUSES, TASMANIA (Number)

Roof material	*1983–84*	*1986–87*
Terracotta and concrete tiles	1255	825
Slate and concrete	1	3
Steel (*a*)	1648	1813
Aluminium (*b*)	3	1
Other (*c*)	10	5
Total	2917	2647

(*a*) Includes pressed steel tiles.
(*b*) Includes aluminium tiles.
(*c*) Includes tiles of metals other than pressed steel or aluminium.

17.1.2 Housing Stock

At 30 June 1987, Tasmanian residential dwelling stock totalled 171 472 homes, flats and units. This figure represents a 1.9 per cent increase in dwelling stock from the previous financial year. The State's total stocks increased by 9.7 per cent in the five years following the 1981 census, which showed the State to have had 153 363 dwellings of all types.

Outright private ownership of housing stocks runs at about 39 per cent of the total while the 1986 census revealed that 24.7 per cent of all of the State total. Construction activities resulted in occupied private dwellings were rented.

Governmental housing programs have had a 618 new dwellings. Recent policies have also accelerated significant impact on Tasmanian housing stocks. governmental spot purchasing of In 1985–86 total stocks under government ownership numbered 17 053, representing about 10 per pre-existing cent stocks in addition to those generated by construction programs, with 178 of these acquisitions in 1985–86.

17.3 FAMILIES AND DWELLINGS STRUCTURE, TASMANIA, 1986

Primary family composition	*Separate house*	*Semi-detached house*	*Row/ terrace house*	*Other medium density*	*Other dwelling (a)*	*Total*
Single parent	7315	247	70	1094	257	8983
Couple —						
Couple only	30881	464	162	2763	1131	35401
Couple and dependent children only	40230	196	46	672	1144	42288
Other couple	21905	87	24	266	420	22702
Total couples	93016	747	232	3701	2695	100391
Related adults	5855	149	34	645	194	6877
Total families	106186	1143	336	5440	3146	116251

(*a*) Includes not stated.

17.4 FAMILIES AND NATURE OF OCCUPANCY, TASMANIA, 1986

Primary family composition	*Owned*	*Being purchased*	*Rented*	*Other (a)*	*Total (b)*
Single parent	1 555	2 222	4 902	272	8 951
Couple —					
Couple only	19 012	8 884	5 901	1 463	35 260
Couple and dependent children only	9 906	22 502	8 449	1 351	42 208
Other couple	10 721	8 404	2 860	704	22 689
Total couples	39 639	39 790	17 210	3 518	100 157
Related adults	3 566	1 199	1 754	327	6 846
Total families	44 760	43 211	23 866	4 117	115 954

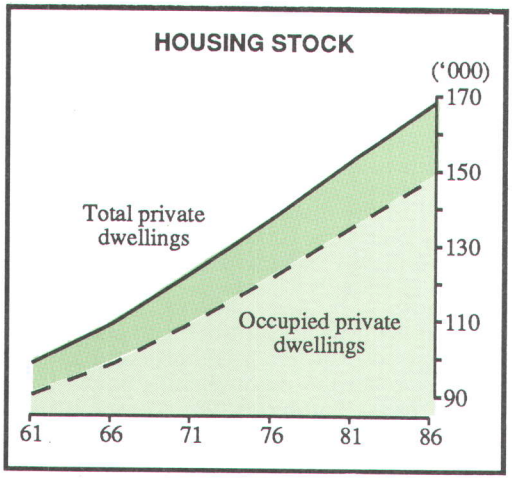
(*a*) Includes not stated.
(*b*) Excludes 295 families in caravan parks.

Home purchase in Tasmania generally entitles the buyer to freehold title, unlike the long-term leases prevalent in other parts of the world.

The great majority of the population (91 per cent) live in single family households, each occupying separate houses.

Almost 55 per cent of single parent families live in rented accommodation. Two-thirds of these are living in accommodation provided by the Housing Department of Tasmania.

Almost 54 per cent of families comprising a couple only, own their residence. A further 25 per cent are purchasing their home. In contrast, most couples with dependent children are in the process of purchasing their residence (53.3 per cent), 23.5 per cent own their home and 20 per cent are renting. The Housing Department provides rental accommodation for 38.2 per cent of couples with dependent children. 51.5 per cent is provided by the private rental market and 10.2 per cent is provided by other government authorities.



17.1.3 Land Stocks

Over recent years the demand for land for use as building lots has exceeded the rate at which it is made available, resulting in much of the old stock being taken up. In urban centres throughout the State in the first nine months of 1986–87 the number of lots made available increased by 260 compared with the same period in 1985–86. Overall lot consumption continues to exceed the production rate and has resulted in much of the old stock being taken up.

17.5 URBAN LAND STOCKS, TASMANIA, JULY 1986–MARCH 1987

Local government area	*Lots developed*	*Lots consumed*
Hobart	36	88
Glenorchy	218	151
Clarence	93	201
Kingborough	176	176
Brighton	67	103
Sorell	68	102
New Norfolk	39	52
Launceston	151	213
Beaconsfield	153	90
Westbury	187	115
George Town	12	28
Longford	24	44
Evandale	7	25
Burnie	30	85
Devonport	70	93
Penguin	18	32
Ulverstone	57	64
Wynyard	80	45
Total	1 486	1 707

Source: Commissioner for Town and Country Planning.

High development costs of new lots coming onto the market have resulted in substantial price increases over the past two years. A survey conducted by the Real Estate Institute of

Australia in March 1987, reported the median price of blocks sold in Hobart to be $21 700. This relatively high price has affected the number of first home buyers choosing to build.

17.1.4 Planning

Forward planning is essential for the effective management of Tasmania's architectural resources, both currently as well as in the future. Such planning in the State has broadened in scope considerably in recent decades in order to meet this priority. City and urban planning has moved progressively away from being concerned mainly with the preservation of isolated historic features and the effective siting of noxious industries toward a more all-encompassing approach to the urban environment.

Preservation is, quite naturally, a priority in Tasmanian planning given the high proportion of Georgian and early Victorian architecture surviving in the State. Current planning facilitates this preservation by seeking to preserve the fabric of area life as opposed to simply maintaining isolated examples of particular architectural and historical merit. For example, the original character of Battery Point in Hobart is being preserved as a result of a special plan set up in 1972, which, by imposing legislative control, seeks to maintain the area in its original residential form.

Throughout Tasmania it has become mandatory for each municipality to direct urban development according to an overall planning scheme. To assist local municipalities in the provision of a scheme the Town and Country Planning Commission has produced a model scheme which can be adopted by those municipalities lacking specialised resources. By this, it is anticipated that some degree of uniformity can be ensured in Tasmanian planning. In addition, suburban planning developments have been important in Launceston, and both Scottsdale and Stanley have produced their own schemes.

The activities of the National Trust have had a significant effect on planning in Tasmania. The Trust has made a major contribution to an awareness of the historical importance of Tasmania's buildings and, although not a government body, often works with local councils to ensure the preservation of significant features. The Trust maintains a Register of Classified and Recorded Buildings, Places and Objects, and through the local councils the Trust seeks to enforce a preservation order should a classified building come under threat.

17.1.5 Housing Finance

The degree of availability and conditions under which housing finance can be obtained constitutes an essential factor determining the level of building activity at any one time. The levels of interest and the actual amount of funding held by lending institutions are inextricably linked with a multitude of shifting economic factors, and because of their volatility, interest rates and loan funds can be taken as accurate indicators of economic conditions generally.

17.6 HOUSING LOANS APPROVED, TASMANIA, 1986–87

Period	*Home loans*		*Other dwellings*	
	No.	*Value ($m)*	*No.*	*Value ($m)*
1986 —				
July	569	18.7	6	0.2
Aug.	481	16.1	10	0.3
Sept.	494	16.7	5	0.2
Oct.	588	21.1	14	1.7
Nov.	588	20.3	14	0.6
Dec.	557	20.4	25	1.9
1987 —				
Jan.	474	15.2	5	0.3
Feb.	519	17.9	8	0.6
Mar.	648	22.9	7	0.1
April	576	20.4	9	0.3
May	551	19.7	10	0.3
June	539	19.6	7	0.2

Loans for all types of housing during the 1986–87 period amounted to a total of $235.5 million compared with $213.2 million in 1985–86.

Home loans totalled $229 million with the remainder being made up by money loaned for the purchase and construction of flats and units. This figure compares with a 1985–86 overall home loan total of some $207.8 million, a 10 per cent increase. While the proportion of total loan funds granted for home construction remained stable at 97.2 per cent of the total, the figure represents a significant increase in the overall level of home construction in the State.

Funding for other dwellings rose by 24 per cent over the same period, from $5.4 million in 1985–86 to $6.7 million in 1986–87, or 2.8 per cent of total funds loaned.

Finance for the construction and purchase of housing is available from a number of sources in Tasmania, but the major share is provided by savings banks. During the 1986–87 period, $74.8 million in housing loans were obtained from this source.

17.7 VALUE OF APPROVED HOUSING LOANS, TASMANIA, 1986–87

Source of loan	*($m)*
Savings banks	174.8
Trading banks	18.6
Building societies	n.p.
Other	n.p.
Total	248.2

Savings banks are a highly attractive source of finance due to their interest rates being among the lowest of all major lenders, but only in cases where a first mortgage is being sought. Savings banks generally lend only a certain proportion of their own valuation of the property, but this is not a wholly inflexible policy. Priority for loans is usually given to established customers depending upon the availability of funds at the time of application.

Trading banks, responsible for lending $18.6 million in 1986–87, specialise in providing short-term finance and personal loans. They make housing loans to established clients, and often provide short-term funds for bridging loans to settle purchases prior to alternative finance becoming available.

Home finance is the major function of building societies and most lending is secured by first mortgage. This specialisation allows them to operate on a low margin. Recently, building societies have been permitted to lend on an unsecured basis. Building societies, together with other institutions such as co-operative housing societies, loaned a total of $54.8 million over the 1986–87 period.

Co-operative housing societies provide loans to buyers in the lower income groups. These societies receive their funds from the Government, insurance companies or banks. They are subject to the control of the Registrar of Co-operative Housing Societies, and their rates are among the lowest available, but their funds are generally limited. When the loans in such a society are paid up, it will then terminate its activities.

Finance companies provide finance for housing which is both short term and more expensive. Occasionally used for supplementary borrowings on second mortgages, loans from this source can have the advantage of a higher loan ratio, up to 95 per cent of valuation, than is standard.

17.1.6 Housing Assistance

The Tasmanian Housing Department is the authority through which the State Government exercises responsibility for public housing in Tasmania. The Department provides and manages suitable accommodation for people who are unable to obtain and maintain occupation of private housing. It also, where appropriate, provides subsidies to private tenants.

The Housing Department takes a direct role in the provision of housing for these people. Since 1953 the Department has concentrated principally upon the construction and maintenance of its housing stocks, and has left government provision of low cost loans for private home builders and buyers to other government agencies.

Some years ago the Department moved away from creating large broadacre housing subdivisions. Instead, it has pursued a policy of constructing small-scale infill developments and spot purchasing established houses in older suburbs. These infill developments serve to integrate public housing developments with the surrounding community facilities and services. Spot purchasing allows housing to be made available in specific areas of need. A significant infill development was completed during 1987. This development, in Amy Street Moonah, contains 76 homes and has been very well received.

In 1987 the existing Home Purchase Scheme was extended mainly to increase the income eligibility levels for families with dependent children from $270 per week to $500 per week. For those without dependent children the income eligibility level remains at $270 per week.

During 1986–87 the number of applications received for rental assistance from the Department increased by approximately 8 per cent or 316, whilst those who received accommodation fell by 6 per cent or 120. Total applications on hand, however, fell from 3860 to 3677, a reduction of approximately 4.7 per cent.

During the year the Department purchased 80 development sites, totalling 24 hectares, for infill housing and medium density projects throughout the State. Additionally, 276 developed building blocks were purchased for the construction of Department homes at a cost of $4 137 770.

During the year 107 dwellings were purchased: 56 houses and units in the south, 26 in the north and 25 in the north west.

Over the 1986–87 period the Department commenced 520 buildings: 204 by the Department's workforce, and 316 by private contractors. Completed dwellings totalled 568. Of these, 160 were constructed by departmental employees and 408 by private contractors.

17.8 HOUSING DEPARTMENT TASMANIA, NET DWELLING STOCKS, 30 JUNE 1987

Type of dwelling	*Dwellings*	
	Constructed	*Acquired*
Houses	12 025	867
Elderly persons' units	2 335	–
Villas	1 427	218
Multi-unit flats	360	93
Total	16 147	1 178

Defence Service Homes Scheme

The Defence Service Homes Scheme is a Commonwealth scheme that has the aim of assisting certain former and serving members of the Australian Defence Forces to acquire a home by providing long-term loans at concessional rates of interest. The Scheme, introduced in 1919 following the enactment of the *War Service Homes Act* 1918, also can provide assistance to the widow, and in some cases the mother, of a deceased eligible person or the wife of an eligible person who is temporarily or permanently insane. Generally, assistance is available to a person who has served during specified times and/or at specified places.

The dwelling must be the intended usual residence and no other home must be currently owned. The Scheme is administered by the Defence Service Homes Corporation whose affairs are conducted and controlled by the Secretary of the Department of Veterans' Affairs.

During 1986–87 the Defence Service Homes Corporation granted 123 loans to Tasmanians. Of this total, 35 were for the construction of homes, 4 were utilised for the purchase of new homes, 81 for the purchase of established homes and 3 for the enlargement of existing homes. Capital expenditure for the year was $2.9 million and loan repayments totalled almost $2.5 million.

17.9 DEFENCE SERVICE HOME LOANS, TASMANIA

Loans	*1985–86*	*1986–87*
No. granted for —		
Construction of homes	43	35
Purchase of homes	105	85
Enlargements to existing homes	4	3
Total	152	123
Capital expenditure ($'000)	3 499	2 876

The First Home Owners Scheme

This Scheme was introduced in October 1983 by the Commonwealth Department of Housing and Construction to assist low to moderate income home buyers to acquire their first home. The benefit is payable for any new or established house, home unit, flat or any other type of fixed dwelling in the city or the country provided that it is intended as the applicant's principal place of residence. Applicants must continue to own and occupy the dwelling to maintain eligibility for the subsidy over a five-year period.

The amount of benefit is determined on the basis of income, family status, number of dependent children and payment option. Currently, families with two or more dependent children may qualify for the full benefit of $6 000 if their income does not exceed $26 000. Assistance is reduced in proportion to the amount by which income exceeds $26 000 and ceases altogether at $34 000. For sole applicants without children the maximum benefit of $4 000 is payable if income is less than $11 500. Proportional assistance ceases for sole applicants when income exceeds $15 500.

Benefits may be taken either as a monthly subsidy spread over five years, or as one of two initial lump sum payment options with a reduced monthly subsidy. These payment alternatives provide flexibility for applicants by increasing borrowing capacity or providing an initial lump sum to help bridge the deposit gap while still providing repayment assistance during the first five years of ownership.

In 1986–87, 43 186 new applications were approved Australia-wide, 1 432 in Tasmania. The benefits paid in the State totalled $6.7 million; 34 per cent of these approved applicants had two or more dependent children, 25 per cent of applicants had one dependent child and 41 per cent had no dependents.

Just under 23 per cent, or 328, of approvals were for homes located in the Hobart area with the remaining 77 per cent scattered throughout the State. Most of the approvals were for existing dwellings (1 284) while 98 were for owner-builders and 50 were for applicants engaging a building contractor.

The First Home Owners Scheme has been a valuable stimulus to housing industry activity and is widely acknowledged to have contributed significantly to the level of dwelling commencements since its inception.

The Tasmanian Development Authority

The Tasmanian Development Authority is responsible for the administration of funds made available under the *Home Purchase Assistance*

Act 1978. It offers two schemes which are designed to provide financial assistance to Tasmanians seeking to buy or build their first home, and thereby further stimulate the State's construction industry. Both these schemes operate in conjunction with co-operative housing societies.

The first scheme, the Home Build Plan, is intended to benefit those on low incomes who want to build their first home. People applying for these low interest loans are required to either own, or be in the process of purchasing, a suitable block of land. Priority in allocating loans is determined, like the First Home Owners Scheme, in accordance with an income test. Priority in allocating loans will go to those applicants whose gross weekly salaries do not exceed $450–$500. If there is a second income in the family, then the combined total should not exceed $650 per week.

Home Build interest rates are fixed for the first year of the loan at a rate of 10 per cent. After the first year the rate charged will vary according to the conditions of the Commonwealth–State Housing Agreement. Generally these rates are expected to remain considerably lower than ruling market rates. Repayments are set according to income and usually amount to about one-quarter of gross pre-tax earnings.

Certain restrictions are placed on the size and value of homes to be built under this scheme. Firstly, size is limited to 120 square metres, the value of the block of land upon which it is built should not exceed $18 000 in city areas, and the total value of the house and block together should not exceed $65 000. Additionally, a block size limit of two hectares is placed on homes financed under the Home Build scheme.

Like the Home Build Plan, the Authority's Home Buy Plan is financed in cooperation with the co-operative housing societies. Priority for these loans is directed towards those with dependent children.

In order to qualify for a Home Buy loan the applicant or applicants must meet an income test. The gross weekly income test for the principal applicant is $450 per week. Where there is a second income, then it should not exceed $650 per week. An assessment may be made of the applicant's assets to determine eligibility. However, personal effects are not regarded as assets for the purpose of the assessment. Interest rates, although subject to periodic review in the light of the applicant's financial position, will be lower than market rates.

17.10 TASMANIAN DEVELOPMENT AUTHORITY, ADVANCES FOR HOUSING AT 30 JUNE (*a*)

Particulars	*1985–86*	*1986–87*
Advances approved —		
Number	733	565
Value ($'m)	26.0	22.7
Total advances outstanding at 30 June		
Number	6 600	6 300
Value ($m)	106.0	114.5

(*a*) Excludes advances to co-operative housing societies.

17.2 CONSTRUCTION

by The Master Builders' Association of Tasmania

Between 1985 and 1987 there was a marked decrease in new dwelling construction throughout Tasmania, reflecting a national trend. There was an 11 per cent decrease in the number of new dwelling unit approvals during 1986–87 from the previous year, and a 17 per cent decline from the 1984–85 figure. Commencements in 1986–87 were over 12 per cent below both 1985–86 and 1984–85 figures. In contrast, commercial building activity has shown significant improvement since 1985, with many private sector projects commencing and employment levels increasing.

Housing Construction

Changes in the political, economic and financial sectors between 1984 and 1987 have played an important role in determining the new housing market in Tasmania.

For instance, the Commonwealth Government's capital gains tax and abolition of negative gearing for rental development prompted a rise in rents and lack of new building for rental purposes. The impact of the move, to end negative gearing of rental property investment after 17 July 1985, was however, lessened by the introduction of a 4 per cent depreciation allowance for new income-producing dwellings, including extensions, alterations and improvements. Nevertheless, many projects due to commence in the next two years were still under threat as the withdrawal of tax incentives over the long term resulted in projects which were previously viable being shelved. This, in turn, resulted in a downturn in building activity and, consequently, in employment.

In addition, following a dramatic fall in the value of the Australian dollar, there was little scope for a reduction in interest rates. Despite the Commonwealth Government partially deregulating savings bank home loan interest rates from the previous 13.5 per cent maximum rate, in April 1986, falling savings bank deposits led to increased interest rates. During 1985–86, Tasmania's average monthly loan repayment rose some 36 per cent and the average loan size grew by 11 per cent, the highest averages of all Australian capital cities. This was in spite of Hobart's house prices rising by only 2 per cent during that year. The rising cost of land also contributed to a fall in new home constructions.

The Commonwealth Government maintained its high interest policy to support the Australian dollar in early 1986. Within the housing industry this resulted in the biggest downturn in private dwelling approvals for the previous two years. March 1986 approvals were 40 per cent below approvals for March 1985.

The decision to de-regulate the 13.5 per cent ceiling on home loan interest rate of the major banks in April 1986, was an attempt by the Commonwealth Government to arrest the decline in the housing industry, but it also meant that savings banks were committed to lending some $6 billion over the next financial year in order to get a $120 million interest rate subsidy proposed by the Commonwealth Government. Although the lifting of the ceiling rate increased the level of housing lending over the year, most of the money seemed to be lent for the purchase of established dwellings and refurnishing of houses rather than providing the employment stimulus of new-home building. The removal of the 13.5 per cent ceiling also sent mortgage interest rates soaring, reaching a high of 17.5 per cent for new home loans from savings banks for non-bank customers.

July 1987 saw the first signs of a fall in home interest rates with the Tasmania Bank setting the lead by cutting 0.75 per cent off its rates to 14.75 per cent for new home loans up to $35 000. Current trends indicate that consumer confidence will slowly but surely increase, as will new-home building.

Commercial Construction

Commercial building activity began to improve significantly from September 1985 and seemed to remain constant for 1985–86, and throughout 1986–87. Total employment levels in the commercial building industry remained stable during the September quarter of 1985–86 with a significant increase of 5.8 per cent in off-site employment, indicating some gearing-up in preparation for future building activity. The sharp rise in activity was largely due to private sector projects, the majority of which were in Hobart and Launceston in the hotel, office and retail sectors. Public sector building remained largely unchanged between 1985 and 1987 with major state projects including Stage 2 of the Launceston General Hospital ($36.5 million), and the police headquarters in Hobart ($30 million).

The amount of vacant office space in Hobart has been relatively low over past years. Consequently, increased demand during 1986–87 prompted the construction of offices at 175 Collins St ($4.5 million) and 54 Victoria St ($4.5 million), as well as the Executive Building in Murray Street, worth $15 million.

The north-west of the State experienced a marked decline in commercial activity, the only major projects being public sector building in Stage 2.B. of the Mersey General Hospital ($6.4 million) and Stage 1B of the Burnie technical College ($7.3 million).

The end of the 1986–87 financial year saw the completion of Tasmania's largest project in recent years, the construction of the Sheraton International Hotel ($45 million).

The past two years have also seen a decrease in industrial disputes on Tasmanian construction sites, a feature viewed by the industry itself as both rewarding and encouraging.

An increase in private sector developments, particularly in hotel and holiday resorts, is indicated for 1988. The most notable is the $35 million International Hotel planned for Launceston, and Japanese interest in the proposed $40 million holiday resorts in the north and the north-west of the State.

The industrial sector is also planning capital development in 1986. Aberfoyle Ltd is planning a major milling facility for its Hellyer mine and expansion is also proposed at the Huon Forest Products Pulp Mill, the E.Z. Company at Risdon, Comalco's Aluminium plant, Burnie's Tioxide plant, and APPM's plants at Longreach and Wesley Vale.

17.2.1 Building Commencements

During 1986–87 total new residential commencements in all areas of the State amounted to 3 450. This represents a decrease of 12 per cent from the previous year's figure of 3 880, and is 16 per cent below the 1984–85 figure of 4 010 commencements.

17.11 BUILDING COMMENCEMENTS, TASMANIA

New dwelling units	*1985–86*	*1986–87*
Private sector	3 280	2 870
Public sector	602	583

Regionally the commencements were spread fairly evenly in relation to population density. The statistical division of Greater Hobart had 39 per cent of all commencements, with 51 per cent of the State total in the Greater Hobart Southern region as a whole. All areas of the State experienced the decline in the number of residential commencements. However, the north-west and western regions were the hardest hit with a 24 per cent decrease from the number commenced during 1985–86.

During 1986–87 building commencements in Tasmania were valued at almost $370 million, a decrease of $10 million on the figure for 1985–86.

The total value of residential construction commenced was just over $170 million, of which private commencements totalled over $144 million and public housing commencements $26 million. $180 million were spent on non-residential construction commencements throughout the State while a further $18 million worth of alterations and additions to residential buildings were commenced.



The old IXL jam factory on Hobart's waterfront gained international acclaim in 1987 when Tasmanian architect, Garry Forward, won the award for best re-use of a building, at the National Architecture awards held in Melbourne. Photo: *Mercury*

17.2.2 Engineering Construction

In 1986–87 almost $294 million were spent on new engineering construction projects in Tasmania. Construction for the purpose of electricity generation, transmission and distribution dominated, accounting for 35 per cent of total work commenced. The main projects were the Pieman, Anthony and King power developments.

Construction of new roads, highways and subdivisions also featured during the year with 30 per cent of the total spent in this area. In addition, a further $61.5 million was spent on

17.12 VALUE (*a*) OF BUILDING COMMENCED, TASMANIA ($m)

Type of building	*Private Sector*		*Public Sector*		*Total*	
	1985–86	*1986–87*	*1985–86*	*1986–87*	*1985–86*	*1986–87*
New houses	127.6	117.1	17.3	15.1	144.9	132.2
Other new residential buildings	29.0	27.9	8.7	10.6	37.7	38.4
Total new residential building	156.6	144.9	26.0	25.7	182.6	170.6
Alterations and additions to residential building	4.6	17.3	0.5	0.9	15.1	18.2
Hotels etc.	41.4	5.2	0.1	–	41.5	5.2
Shops	27.5	30.5	–	0.4	27.5	30.9
Factories	5.7	14.1	0.3	4.2	6.0	18.3
Offices	35.2	9.1	6.0	4.1	41.2	13.2
Other business premises	7.5	6.8	2.0	11.0	9.6	17.9
Educational	2.7	4.5	14.3	25.9	17.0	30.4
Religious	2.1	1.9	–	–	2.1	1.9
Health	3.1	7.3	3.9	42.9	7.0	50.1
Entertainment and recreational	3.5	3.3	8.9	3.5	12.5	6.8
Miscellaneous	2.7	3.4	15.0	2.7	17.6	6.1
Total non-residential building	131.3	85.9	50.5	94.7	181.8	180.6
Total all building	302.6	248.1	77.0	121.4	379.6	369.5

(*a*) Value when completed.

road projects begun prior to 1986–87, including the construction of the Davey Street extension in Hobart, the completion of the Burnie expressway, and continued work on the multi-million dollar road development at Mornington.

17.13 ENGINEERING CONSTRUCTION, TASMANIA, 1986–87 ($m)

Project	Stage of construction		
	Commenced	*Work done*	*Work yet to be done*
Roads, highways and subdivisions	89.1	61.5	20.0
Bridges	8.1	0.7	0.8
Railways and tramways	–	–	–
Harbours	3.4	2.3	2.5
Water storage and supply	8.4	5.6	0.9
Sewerage and drainage	11.9	12.2	3.6
Electricity generation, transmission and distribution	101.5	–	340.0
Pipelines (other than water)	0.3	0.4	0.1
Recreation	5.1	6.4	0.5
Telecommunications	37.0	37.6	–
Heavy industry, oil, gas	0.4	0.2	–
Heavy industry, coal	12.1	–	0.1
Heavy industry, bauxite, alumina	0.3	0.3	0.1
Heavy industry, other minerals	5.6	2.0	0.8
Heavy industry, other	9.5	4.1	0.6
Other	1.0	0.6	–
Total	293.7	133.7	370.0



Road Construction work on the Tasman Highway at Mornington. Photo: *Mercury*

A further $370 million worth of work was still to be carried out on various projects at the end of June 1987, of which 92 per cent was in the area of electricity generation, transmission and distribution.

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Chapter 18

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Chapter 18

TRANSPORT and COMMUNICATION

Early Tasmania relied on ships for sustenance, cultural links with the outside world and for local transport and exploration. A need for self-reliance, and the availability of convict labour, led to early road building. From 1815, substantial exports of food and produce to Sydney commenced, further accelerating requirements for efficient, reliable transport.

The advent of railways and of mechanised transport generally, soon spread to Tasmania. Although Tasmania lacks the scale of distance of mainland Australia, its terrain often proves challenging. Today, modern land, sea and air transport are nonetheless widely available.

As well as efficient transport, Tasmania, as an Island State, is also heavily reliant on communication technology.

Australia is about to enter a new era of access to television, radio, telephone data, education services and many other ways of information communication. The launching of Aussat I and II in 1985 meant Australia joined a select group of countries with their own satellite systems. The Tasmanian link with Aussat is an earth station located in a disused quarry near Hobart.

The benefits of Aussat include: direct broadcasting of television and radio services to remote areas; the provision of two-way connections to receivers-transmitters in remote areas, for vastly improved air navigation and voice-data communications with aircraft and to provide Telecom with the means to introduce telephone services to remote areas.



18.1 TRANSPORT

Almost every sector of the community relies on the transport industry. Without road, water air and rail transport the lifestyle and conveniences that we now take for granted would not be possible. Although road transport is the oldest and most frequently used means of transport, all sectors contribute significantly to the life and economy of the State.

18.1.1 Road

In 1807 the first road in Tasmania, a four km link between Hobart and New Town, was built. Just 11 years later, the 199 km Great North Road from Hobart to Launceston was completed. The State now has almost 23 000 kilometres of roads and highways of which some 39 per cent are sealed.

Because of the State's small size, road distances between the major centres of population, are short by comparison with the other Australian States. No major centre is more than 420 kilometres from the capital.

Although the road network is probably as good as anywhere in relation to the volume of traffic carried, there are always improvements to be made and additional routes to be constructed.

DISTANCES BETWEEN MAJOR TASMANIAN CENTRES (kilometres)

	Burnie	Campbell Town	Deloraine	Devonport	George Town	Hobart	Launceston	Port Arthur	Queenstown	St Helens	Scottsdale	Smithton	Somerset	Swansea	Ulverstone	Wynyard	Zeehan
Burnie	–	197	97	48	152	326	148	399	181	294	211	86	7	264	30	18	154
Campbell Town	197	–	100	149	118	132	67	204	253	122	131	281	201	68	165	213	282
Deloraine	97	100	–	49	89	228	50	304	205	198	111	185	105	168	69	117	247
Devonport	48	149	49	–	106	278	100	353	229	247	171	134	55	218	19	66	202
George Town	152	118	89	106	–	250	51	321	305	216	73	238	159	186	124	170	306
Hobart	326	132	228	278	250	–	198	100	258	253	263	413	333	137	297	345	296
Launceston	148	67	50	100	51	198	–	271	254	165	63	234	155	136	119	166	296
Port Arthur	399	204	304	353	321	100	271	–	358	307	335	485	406	182	373	421	392
Queenstown	181	253	205	229	305	258	254	358	–	374	317	245	175	322	211	184	38
St Helens	294	122	198	247	216	253	165	307	374	–	99	381	302	123	267	312	412
Scottsdale	211	131	111	171	73	263	63	335	317	99	–	294	215	222	181	229	365
Smithton	86	281	185	134	238	413	234	485	245	281	294	–	79	353	116	68	217
Somerset	7	201	105	55	159	333	155	406	175	302	215	79	–	271	37	12	147
Swansea	264	68	168	218	186	137	136	182	322	123	222	353	271	–	233	281	350
Ulverstone	30	165	69	19	124	297	119	373	211	267	181	116	37	233	–	48	184
Wynyard	18	213	117	66	170	345	166	421	183	312	229	68	12	281	48	–	151
Zeehan	154	282	247	202	306	296	296	392	38	412	365	217	147	350	184	151	–

New Road Works

Major works completed during 1986–87 were the sealing of the Lake Leake main road and the opening of the first section of the new West Coast link road program, the new road extending Rebecca Road to Couta Rocks. Other major works completed during 1986–87 included the Burnie Expressway Stage B, the Huon Highway reconstruction from Vinces Saddle to Grove, the deviation of the Tasman Highway from Fingerpost Road to Black Charlie's Opening and the reconstruction of the Tasman Highway between Branxholm and Derby.

On National roads, work was continued on the Launceston Southern Outlet from Breadalbane to Strathroy. In the north-west, sections of the Bass Highway widening from Don Hill to Forth River were completed, and work continued on the Turners Beach Road overpass. The Burnie Expressway was completed.

Significant progress was made on arterial roads. In the south, work continued on the duplication of the Southern Outlet from Olinda Grove to Kingston. A major project expected to improve traffic flow around Hobart was the extension of Davey Street from Hunter Street to the Tasman Highway.

The construction of the Davey Street Extension provided the Department of Main Roads with a new form of challenge. The route traversed areas of historical importance, including the Hunter Island Causeway, Wapping and the Gas Works site. In order to meet the requirements of the Commonwealth Acts, under which the funds for the project were provided, the Australian Heritage Commission had to be satisfied that the construction would not destroy items of national significance. The Department employed an archaeologist to excavate and record the foundations on the line of the extension. During these excavations the Hunter Island Causeway was found in a relatively intact state, foundations of buildings were recorded and artefacts collected. The construction then proceeded with the necessary approvals.

Several projects have been undertaken in the north-west with the intention of opening up the region for tourism and trade purposes. Work continued on the Guilford-Hampshire link road project; the Hellyer River bridge was virtually completed and construction of the Wey River bridge continued. Construction works were carried out on the Que River to Learys Corner Link Road and the Smithton to Zeehan corridor.

Road Signing: During the 1986–87 financial year the signing of the State Road network was completed, apart from a few isolated locations within the Launceston and Hobart urban areas. Some of these locations have been or will be

affected by roadworks and consequently signing was deferred. 'Overtaking Lane x km Ahead' signs were introduced in the south-east district, ultimately to be used state-wide.

Diagrammatic Lane Allocation Warning Signs were installed on the three-lane sections of the main arterial roads leading into Hobart.

Motor Vehicles

In 1910, with a total of 400 motor vehicles registered, including motor cycles, there were two vehicles for every 1 000 people. By June 1986, 86 per cent of Tasmanian households owned at least one motor vehicle. Many owned more; only 12 per cent of households did not have a car.

18.1 HOUSEHOLDS WITH MOTOR VEHICLES (*a*), TASMANIA, 1986

Vehicles	*Households*	*Percentage*
0	17 213	11.5
1	59 983	40.1
2	50 194	33.6
3	13 284	8.9
4 or more	5 231	3.5
Not stated	3 553	2.8
Total	149 458	100.0

(*a*) Excludes motor bikes, motor scooters and tractors.

According to the 1986 Census driving a car was by far the most frequently used method of travelling to work. Indeed Tasmanians rely on the car for getting to work to a significantly greater extent than do people in other Australian States. Public transport is used much less in Tasmania than in other States, particularly New South Wales and Victoria.

18.2 MODES OF TRAVELLING TO WORK, 1986 (%)

State	*Car*		*Train, tram, bus or ferry*
	Drive	*Passenger*	
NSW	61.5	9.9	19.2
Victoria	67.1	9.8	14.7
Queensland	66.4	11.4	9.2
SA	68.3	10.0	10.8
WA	69.8	10.9	9.5
Tasmania	70.3	12.6	6.5

Per head of population, Tasmania has had the highest rate of car ownership in Australia since 1985 when Western Australia was ranked first Queensland second and Tasmania third.

18.3 MOTOR VEHICLES REGISTERED, AUSTRALIAN STATES, 1987

State	*Number of vehicles on register*	*Vehicles per 1 000 of population*
NSW	3 041 800	543
Victoria	2 529 400	601
Queensland	1 575 900	589
SA	834 900	599
WA	906 100	606
Tasmania	274 900	612
Australia	9 374 300	577

Road Toll: The road toll for Tasmania in 1987 was 77 persons killed and 1 959 injured. The number of fatalities decreased by 14 compared with 1986 and over time has continued to decline significantly as a proportion of vehicles registered.

18.4 TASMANIAN ROAD TOLL (per 10 000 registered vehicles)

Year	*Persons killed*	*Persons injured*
1966	8.1	163
1971	8.1	127
1976	5.3	115
1981	4.7	96
1986	3.3	75
1987	2.8	71

Buses

Preference for the family car for such journeys as travelling to work has resulted in decreasing patronage of public transport. Only 5.2 per cent of employed persons used a bus to travel to work in 1986, compared to 8.1 per cent in 1981.

Within the urban areas of Hobart, Launceston and Burnie, the provision of public transport is the responsibility of the Metropolitan Transport Trust. To stem the declining patronage over recent years, the MTT has attempted to attract or win back passengers with a range of fare packages.

18.5 MTT PASSENGERS, TASMANIA ('000)

Year	*Hobart*	*Launceston*	*Burnie*
1980–81	12 089	3 304	1 008
1982–83	10 624	2 833	861
1984–85	10 772	2 858	904
1986–87	10 502	2 841	904

Concession fares are available to children up to the age of 14, full-time school students and pensioners. Of the total passengers carried on

scheduled services, 67.2 per cent paid concession fares and 32.8 per cent paid full adult fares during 1986–87. Of the concession passengers 56.1 per cent were child/student passengers and 43.9 per cent adult concession passengers.

A wide range of discounted periodical fares are available to passengers. Weekly and monthly tickets were introduced on 30 June 1985 for full fare adult passengers and student/child passengers to provide a substantial discount against single trip tickets. Of these passengers an estimated 21.5 per cent used periodical tickets during 1985–86, 15.1 per cent of all passengers carried.

A long term bus replacement program to improve operating efficiency and to make public transport more attractive by the use of modern comfortable buses continued. Many of the buses will be assembled in Tasmania after the Tasmanian Development Authority successfully negotiated with Ansair to establish a vehicle building factory at Kingston. The first Tasmanian built bus was expected to be delivered in June 1988 with additional deliveries being made fortnightly.

Construction of a new bus body repair workshop was completed at the MTT's Mornington bus maintenance facility.

Bus for Disabled: The MTT took delivery of a prototype 'kneeling' bus especially designed for aged and disabled people. The bus is designed to allow the driver to lower the front of the bus to kerb height to make it easier for passengers to get on and off. The 'kneeling' action occurs when air is let out of a bag near the front left suspension and then re-inflated, an operation taking about four seconds. The bus is the first public transport bus in Australia to have the device. Other features of the bus include a very low floor, larger raised seats, a passenger-operated centre door, a central luggage area and low exhaust emissions. It also has a totally enclosed engine which makes it quiet, particularly for passengers.

18.6 MTT OPERATING STATISTICS, 1986–87

Passenger journeys —	
Hobart	10 501 000
Launceston	2 840 000
Burnie	904 000
Vehicle — kilometres	9 775 427
Income ($)	7 805 555
Expenditure ($)	21 387 049
Employment —	
Hobart	429
Launceston	105
Burnie	27

18.1.2 Water

Tasmanian Aboriginals are thought to have used 'canoes' made from sheets of bark stripped from stringy-bark gum trees as the first known form of water transport in Tasmania. The crude, unseaworthy nature of these craft was in stark contrast to the comparatively modern ships which brought the early explorers and settlers to Tasmania. Sea transport is the dominant means of transporting goods to and from Tasmania. During 1986–87, 10.8 million mass tonnes of cargo were carried through Tasmanian ports.

Ships

Tasmania's sea cargo is handled at four main ports, Hobart, Launceston, Devonport and Burnie. During 1986–87, 1 804 ship visits were made to these ports.

Holyman Ends 120 Years of Service

In 1987 the last ship in a long line of Holyman vessels, *Mary Holyman*, sailed Bass Strait for the last time. The voyage ended 120 years of shipping service provided by the Holyman shipping company.

The shipping line was established by the original William Holyman. The son of a ship's captain, William went to sea as an apprentice at the age of 15 and sailed for six years before settling at Torquay (East Devonport) on the eastern side of the Mersey. He bought an 18 tonne vessel in 1861 and began a shipping service from Launceston to Port Sorell, Devonport, Latrobe, Don, Forth, Ulverstone, Penguin and Burnie. At the time, road communication was poor and business opportunities good and the service proved profitable. At varying periods the Holyman family had up to eight ships in service.

By 1885 the shipping line faced a crisis. A railway had been built from Launceston to Devonport, providing an alternative to Holyman's cargo trade. They converted to steam powered vessels and began carrying passengers. The company continued to expand opening up cargo routes to the Bass Strait islands, Melbourne and Adelaide.

William Holyman died in 1919 at the age of 86. His second son, William, died two years later, leaving five of his sons to carry on the business.

About 16 years ago the Holyman shipping interests were integrated with those of the Union Steamship Company.

Chronology of Major Transport Events

24 November 1642	The Dutch explorer Abel Tasman made the first European sighting of Tasmania.
12 February 1807	The first crossing of Tasmania from north to south was completed.
1 February 1832	The *Surprise* became the first steamship to operate in Tasmania. It plied between Hobart and Bellerive.
10 February 1871	The Launceston to Deloraine Railway commenced operation.
1 October 1890	Tasmanian Government Railways took over the Tasmanian Main Line Railway Company.
21 September 1893	Hobart Electric Tramway Company commenced operation.
1 February 1909	The Police Department commenced registering vehicles and licensing drivers.
17 December 1919	A.L. Long in a Boulton and Paul biplane made the first flight across Bass Strait between Smithton and Torquay.
26 January 1937	The first traffic lights in Tasmania commenced operation on the Liverpool/Elizabeth Sts corner in Hobart.
1 July 1939	The Transport Commission commenced operation.
22 December 1943	The Hobart Bridge linking western and eastern suburbs was opened.
1 July 1955	The Metropolitan Transport Trust took over Hobart tram and bus services.
23 June 1956	The new Hobart Airport was officially opened.
2 October 1959	The *Princess of Tasmania* entered service on the Devonport–Melbourne run, the first roll on–roll off vessel to serve Tasmania.
17 August 1964	The Tasman Bridge was opened for traffic.
13 September 1966	The first jet airliner to service Tasmania landed in Hobart.
29 October 1966	Launceston's new airport was opened.
7 December 1968	The Government operated Green Coach Lines was disbanded and the services taken over by Ayers Coach Services.
5 January 1975	The Tasman Bridge was hit by ANL vessel, *Lake Illawarra*, breaking the link between Hobart's eastern and western suburbs.
1 July 1975	Ownership of Tasmanian Government Railways passed to the Australian National Railways Commission.
8 October 1977	The Tasman Bridge re-opened.
28 July 1978	All rail passenger services in Tasmania were terminated.
6 January 1982	Random breath testing of motor vehicle drivers was introduced.
1 July 1983	The Division of Road Safety was transferred from the Police Department to Transport Tasmania.
1 July 1985	The *Abel Tasman* commenced regular services between Melbourne and Tasmania when it departed Station Pier, Melbourne, bound for Devonport.
30 March 1987	Qantas replaced its direct Hobart–Auckland service with a service via Melbourne to allow direct transfer to overseas destinations.

Ferries

Derwent River

Hobart's ferry service is almost as old as Sydney's but the opening in 1943 of the floating bridge caused a decline in ferry numbers. When the *Lake Illawarra* struck the Tasman Bridge severing the link between the eastern and western shores of the Derwent River all that was available as a replacement was one vintage river ferry, one old car ferry and two modern cruise boats which had been trying to develop a tourist trade.

The tragedy resulted in the biggest upheaval in the tourist boat and ferry trade since steam came to Australia more than 150 years before. In 1975 Sullivans Cove Ferries put three new ferries into service and leased a hover-ferry. The State Government built a cable punt, obtained two old ferries from Sydney (one unusable) and one from Hong Kong which required substantial changes to facilities onshore. In addition many cruise boats quickly came to Hobart from other parts of Tasmania.

Of the four original boats on hand on 5 January 1975, only the 1912 built *Cartela* is still in use as a cruise boat in Hobart. The *Cartela* is now taking advantage, as are other ferries, of a renewed interest in tourist cruises on the Derwent.

Bruny Island Ferries

The State Government provides the only regular transport link to Bruny Island, south of Hobart. The service operates between Kettering on the Tasmanian mainland and Roberts Point on Bruny Island, a distance of 3.2 kilometres. Two ferries, *Harry O'May* and *Mangana* (as a back-up) operate the run. The *Harry O'May* is the former *Man On*, the ferry obtained from Hong Kong in 1975 by the State Government.

During 1986–87, 6 906 trips were made and 84 896 vehicles were transported. There was a 4.7 per cent drop in the number of vehicles transported from 1985–86 to 1986–87. The decrease was attributed to an increase in fares, bad summer weather and the closing of the mutton bird season.

Bass Strait Passenger Ferry

The Bass Strait passenger ferry, *Abel Tasman* operates between Devonport and Melbourne making three return overnight crossings per week. Purchased by the State government in 1984, it attained an operating surplus of $2.7 million in its second year of service. In January 1987 it carried its 300 000th passenger and established itself as a vital link in Tasmania's Bass Strait transportation services.

During 1986–87 the *Abel Tasman* carried 180 998 passengers and 48 334 vehicles.

18.1.3 Rail

On 1 July 1975 control of the State's railway system was transferred to the Commonwealth Government and in 1978 all regular passenger train services in Tasmania ceased.

For a number of years, Tasmania's rail system carried a declining number of passengers. As a result the service was withdrawn when budget restraints forced cutbacks in public expenditure. Today the State's rail system is used only to transport goods or to run an occasional tourist excursion.

In 1986–87 Tasrail moved 2 215 000 tonnes of freight, an increase of 1.3 per cent on 1985–86. Woodchip logs, coal, sulphuric acid and mineral clay traffics increased during the year. Tasrail is equipped to service the increased demand as a result of wagon upgrading. A total of 27 715 wagon loads of woodchip logs were delivered during the year. The significant increase over the previous year's performance was aided by increases in wagon capacity resulting from the accelerated air brake conversion program. Sulphuric acid traffic increased due to expansion by Tioxide at Heybridge.

18.7 TASRAIL FREIGHT ('000 Tonnes)

	1985–86	*1986–87*	*%*
Cement	335.9	301.1	–10.4
Sulphuric acid	108.6	116.9	+7.6
Woodchip logs	739.3	870.7	+17.8
Other logs	194.5	133.3	–31.5
Timber sawn	19.5	24.3	+24.6
Containers	333.2	296.9	–10.9
Coal	336.4	365.1	+8.5
Minerals — clay	40.2	44.2	+10.0
Fertiliser	67.1	57.5	–14.3
Goods n.e.c.	11.1	5.0	–55.0
Total	2 185.8	2 215.0	+1.3

Total Tasrail customer earnings during 1986–87 were $22.4 million, an increase of 12.2 per cent from 1985–86. The loss incurred by Tasrail in 1986–87 was $15.5 millon. 1986–87 was the second year of the three year contract in which the Commonwealth Government agreed to pay revenue supplements to Australian National Railways to support Tasrail's continued operation. The revenue supplement for 1986–87 was $17.8 million, a decrease of $0.6 million from funds provided in 1985–86.

18.1.4 Air

Air transport provides a vital role in the maintenance and development of passenger and freight flows between Tasmania and the mainland — a role far more important than in other states where alternative additional transport modes for interstate movement of passengers and freight exist.

Australian, Ansett and East West provide regular domestic services to and from Tasmania. Qantas flies weekly from Hobart to Auckland, whilst Air New Zealand flies weekly between Hobart and Christchurch. Internally, Airlines of Tasmania, Scenic Air, Par Avion and Tasair provide passenger, charter and tourist flights within the State. Airlines of Tasmania and Promair connect King and Flinders Islands with centres in Victoria and Tasmania.

18.8 DOMESTIC AIR TRANSPORT, 1987

Airports	*Aircraft movements*	*Passengers ('000)*	*Freight (tonnes)*
Hobart	9 516	489	4 665
Launceston	10 554	353	27 780
Devonport	9 640	172	368
Wynyard	3 768	68	151

Hobart Airport is located 18 kilometres from the city and is ranked eighth in the volume of passengers handled at Australian terminals.

On 1 January 1988, the Federal Airports Corporation was vested with the operation of the airport, as well as 16 other major airports throughout Australia, including Cambridge and Launceston.

The airport has been developed to accommodate Boeing 747 aircraft operating to places as far away as Singapore. International operations to New Zealand are provided by Air New Zealand flying to Christchurch and Qantas to Auckland. A new international terminal building and extended runway were completed in 1985. The runway is 2 251 metres long and is serviced by modern radio navigation aids to permit all weather use.

Launceston Airport is also operated by the Federal Airports Corporation and is located some 16 kilometres south-east of Launceston City. The airport ranks as the next busiest to Hobart handling in excess of 400 000 passengers each year, and more freight than any other airport in Tasmania through Ipec, Australian and Ansett freight operations.

The Airport is the base for Airlines of Tasmania and the Flying Doctor Service, and is also used for commuter operations, flying training, light aircraft charter, and other aerial work operations.

Tasmania has nine other aerodromes at Cambridge, Devonport, Flinders Island, King Island, Queenstown, Smithton, St. Helens, Strahan, and Wynyard. Devonport and Wynyard airports have runways large enough to carry jet aircraft and handle regular passenger services to Victoria, while the remainder predominantly cater for internal commuter, charter and private aircraft services.

18.2 TELECOMMUNICATIONS

Modern business practices rely heavily on the ability to gather and communicate information effectively. Telecommunication services in Tasmania in 1987 continued to improve and expand to meet increased demand.

The responsibility for internal telecommunications such as telephones, telex, telegrams and similar services is vested in the Australian Telecommunications Commission (Telecom Australia), an Australian Government statutory authority.

18.2.1 Services

During the 12 months to June 1987, 15 382 new telephone services were installed in Tasmania. This brought the total telephone services in operation to 176 754.

18.9 TELECOMMUNICATIONS SERVICES, TASMANIA, JUNE 1987

Services	*Number*
Private telephones	175 641
Public telephones	1 113
Total telephones	176 754
Telex services	1 063
Datel services	2 891

During the year, the value of local and long distance calls was $73.2 million; a further $2.3 million worth of calls was registered at public telephones and 43 500 telegrams were lodged.

Other Services

The Datel service allows computers to communicate at various speeds using what are basically ordinary telephone lines. To do this, digital signals from the computer are converted by means of a data modem into a form which can be transmitted along the line in a similar manner

to the voice. At the other end, a modem converts the analogue signals back into a digital form. At 30 June 1987, 2 891 modems were in service in Tasmania.

Applications of datel technology include airlines reservations systems; seat availability, bookings and confirmation.

For business people, Telecom offers a manual mobile telephone service. The service is available through the national Mobile Net system. The 'cellular' network of base and switching stations connected to the general Telecom system allows better, more versatile reception than earlier technologies. Introduced in Tasmania in November 1987, to a region based on a 25 kilometre radius of Hobart, 54 services were initially connected. Further regions based on Launceston and the north-west will be established by July 1988.

Statewide and nationwide radio and television broadcasts are carried on Telecom's broadband network out to transmitting stations across the country; the same network also distributes the satellite programs from overseas, once they have been received in Australia.

Facsimile machines are used to send copies of drawings, graphs, handwriting or even photographs over the telecommunications network by connecting machines to ordinary telephone lines.

18.3 POSTAL SERVICES

The statutory authority, Australia Post, provides surface and airmail services, both within Australia and to and from other countries for the carriage of letters, cards, aerogrammes, newspapers, packets and parcels.

Special services provided include priority paid, cash on delivery, registered post, response services, private boxes and locked bags and several reduced rate services. It also operates an express courier service and electronic postal services.

Australia Post operates a money transfer service (money order), sells a range of packaging products (postpak), postal stationery and philatelic items and acts as an agent for many services of commonwealth, state and local government departments and authorities. It also acts as an agent for private-sector principals.

On behalf of private enterprise, post offices now issue insurance policies and accept premiums, display investment prospectus booklets, display and accept orders for flags and other promotional material.

Australia Post employs about 751 full-time and 93 part-time staff in Tasmania. Gross postal receipts for 1986–87 in the State were $24.3 million; $12.5 million was from the sale of postage stamps including philatelic sales.

18.10 POSTAL SERVICES, TASMANIA, 1987

Post Offices —	
Official	41
Non-official	185
Postal traffic ('000) —	
Standard letters	56 384
Total articles	64 705

Mail was distributed to 174 315 different delivery points throughout the State during 1986–87, 158 705 households and 15 610 businesses.

To meet the demand for a fast mail service Australia Post provides a wide range of electronic mail services. It is now possible to 'post' a letter by phone and have it delivered within two hours. This service (E-Post) has the advantage of continuing to operate after business hours.

18.4 NEWSPAPERS

by David Waters, Senior Lecturer, School of Librarianship, University of Tasmania.

Tasmanians have enjoyed a tradition of a vigorous and competitive press since early colonial days.

The colony's first newspaper, the *Hobart Town Gazette*, was produced by Andrew Bent in 1816. Publication continued until 1825, when Governor Arthur, who had been consistently criticised and attacked by Bent, gained control of the *Gazette* through the intriguing tactic of engaging alternative printers to publish an issue on 24 June with the same name and numbering as Bent's publication! The two publications continued in competition until 19 August, when Bent changed his paper's name to *Colonial Times and Tasmanian Advertiser*. Arthur brought successful libel actions against Bent in 1826 and 1827, and denied him a licence to publish. Several new publications appeared in the following decade, and by mid-century the two major present-day city newspapers were established: *The Examiner* (Launceston) in 1842, and *The Mercury* (Hobart) in 1854.

Although Tasmania's population is relatively small, it is rather decentralized, and for this reason *The Mercury* (average daily circulation about 54 000) and *The Examiner* (42 000) con-

tinue to flourish, along with a third regional newspaper, *The Advocate* (26 000), which serves the north-western part of the State. Each paper serves as the major printed source of news — local, national, and overseas — for the majority of people in its region. Each newspaper also produces a weekend edition: *The Sunday Tasmanian* (*The Mercury*) average circulation about 40 000; *The Sunday Examiner* (*The Examiner*), 43 000; and *The Weekender* (*The Advocate*), 14 000. These papers contain a miscellany of overseas and Australian items from the news agencies, some local reporting, and substantial magazine sections.

18.5 RADIO AND TELEVISION SERVICES

Radio and television broadcasting fall within the jurisdiction of the Commonwealth Government and are the responsibility of the Minister for Transport and Communications. Federal bodies which are directly involved include the Department of Transport and Communications, Australian Broadcasting Tribunal (ABT), Australian Broadcasting Corporation (ABC), Special Broadcasting Service (SBS) and the Australian Telecommunications Commission (ATC).

The Australian broadcasting system consists of three types of services:

- national radio and television services provided by the ABC and SBS;
- commercial radio and television services provided by commercial companies under licence;
- public radio services provided by non-profit making corporations under licence.

The Broadcasting Act 1942 governs the establishment and operation of commercial and public services. It also contains provisions relating to the SBS and the ABT. The *Australian Broadcasting Corporation Act* 1983 provides for the ABC. The Minister for Transport and Communications is responsible for developing policy, legislation and for planning of the overall system. The Minister is also responsible for approving the technical operation of services and for investigating interference to the transmission or reception of programs. The Department of Transport and Communications provides advice on all matters the Minister is responsible for, and in many instances undertakes functions on behalf of the Minister. An important function of the Minister is the consideration of all planning proposals for the establishment of radio and television services. For commercial and public services, once the Minister has approved proposals and invited applications for a licence, such applications are considered by the ABT.

National Broadcasting Services

The ABC currently provides one television service nationally, three radio services (two AM and one FM) in the capital cities (except Sydney which has two AM and two FM) and two radio services (one AM and one FM) in regional areas (although not all areas are yet receiving ABC FM). However, in November 1985, the Minister announced that draft plans had been issued to establish an extra ABC radio service, the Second Regional Radio Network, in regional areas.

The ABC is a major user of the new Australian satellite system, Aussat, and this enables people living in remote areas or areas in which it is extremely difficult to receive broadcasting signals by terrestrial means to receive ABC television and three ABC radio services. However, reception via satellite will only be possible with the necessary equipment.

The SBS is currently in the process of becoming a national service. The television service in Hobart commenced in early 1986. The television service is multicultural in theme and its programs reflect the many cultures of the world which exist in Australia. In Sydney and Melbourne, the SBS also operates a radio station broadcasting multilingual programs.

18.11 RADIO STATIONS IN OPERATION AT 30 JUNE 1985

Call sign	*Classification*	*Location*
7ZL	National	Hobart
7ZR	National	Hobart
7NT	National	Launceston
7QN (*a*)	National	Queenstown
7FG (*a*)	National	Fingal Valley
7SH (*a*)	National	St Helens
7HO	Commercial	Hobart
7HT	Commercial	Hobart
7AD	Commercial	Devonport
7BU	Commercial	Burnie
7EX	Commercial	Launceston
7LA	Commercial	Launceston
7QT	Commercial	Queenstown
7SD	Commercial	Scottsdale
7THE-FM	Public	Hobart
7HFC-FM	Public	Hobart
7LTN	Public	Launceston
7WAY	Public	Launceston
7RGY	Public	Geeveston
ABC-FM	National	Hobart Launceston

(*a*) Transmits, in the main, programs originating from 7NT.

Commercial Broadcasting Services

A commercial radio or television licensee is required under the *Broadcasting Act* to undertake to provide an adequate and comprehensive service to people within the service area of the

licensee and to use and encourage the use of Australian resources. Whether a licensee has met the undertaking is a matter of judgement for the Tribunal after considering all relevant information, including views and comment from interested members of the public through the licensing process. Commercial broadcasters receive most of their income from the broad-casting of advertisements. Commercial broadcasting licensees are required to pay licence fees annually.

Public Broadcasting Services

Public radio services have expanded rapidly throughout Australia since 1978 when the then Minister announced policy guidelines for its development. From 12 stations in 1978, the sector now comprises over 70 services in 1987. There are five public radio stations in Tasmania. Funds may come from a variety of sources including government and non-government grants, subscriptions and sponsorship announcements. Public radio services are essentially local in focus and may program material which reflect the wide range of interests, informational, cultural and educational, in each service area.

18.12 TELEVISION STATIONS IN OPERATION, 30 JUNE 1987

Call sign and channel	*Area*	*Transmitter location*
National —		
ABT 2	Hobart	Mt Wellington
ABNT 3 (*a*)	NE Tasmania	Mt Barrow
ABKT 11 (*a*)	King Island	Gentle Annie Hill
SBS	Hobart	Mt Wellington
Commercial —		
TVT 6	Hobart	Mt Wellington
TNT 9	NE Tasmania	Mt Barrow

(*a*) Transmits programs originating from ABT 2.

Program and Advertising Standards

Commercial and public licensees are required to meet the Tribunal's standards. The ABC is required to have regard to the standards but are not obliged to meet them. The standards include requirements relating to Australian content, the acceptability of program material, duration and suitability of advertisements and, in the case of television, special provisions relating to children's programs.

Microwave Links, Intrastate Relays and Translator Stations

The prime sources of programs in Hobart are the commercial and national studios which are linked to their Mt Wellington transmitters (TVT 6 and ABT 2) by microwave links; the commercial studio in Launceston feeds programs to its Mt Barrow transmitter (TNT 9) by the same method. As there is no national studio at Launceston, the transmitter on Mt Barrow (ABNT 3) relays the Hobart national programs through the broadband radio link. A similar service is also available to commercial stations.

18.13 TELEVISION TRANSLATOR STATIONS IN OPERATION AT 30 JUNE 1987

Area served	*Local channel*	
	National	*Commercial*
Burnie	4	10
Derby	..	11
East Devonport	48	51
Lileah	8	6
Maydena	..	8
Montumana	56	53
Penguin	60	..
Queenstown-Zeehan	4	8
Rosebery-Renison Bell	1	10
Savage River-Luina	4	7
Smithton	4	11
South Launceston	1	11
St Helens	0	7
St Marys-Fingal Valley	1	11
Strahan	10	..
Strathgordon	5	8
Swansea-Bicheno	4	8
Taroona	..	8
Ulverstone	59	..
Waratah	2	11
Wynyard	1	5A

18.6 REFERENCES

ABS Publications Produced by the Tasmanian Office:

Motor Vehicle Census, Tasmania, (9309.6), irregular.

Motor Vehicle Registrations, Tasmania, (9303.6), monthly.

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Chapter 19

TRADE

Tasmania's first recorded trading activity occurred in 1808 when a cargo of sugar arrived at the colony from Bengal. Exports began in 1812 when the *Cyclops* sailed for Sydney with a cargo of locally grown wheat. In June 1813 ports were opened to commerce and trading began in Van Diemen's Land. 20 000 bushels of wheat were exported to Sydney in 1817. In 1819 wheat to the value of £4 000 was exported and in 1820, 43 917 pounds of salted meat which was produced at the settlement of Hobart, was exported to Sydney.

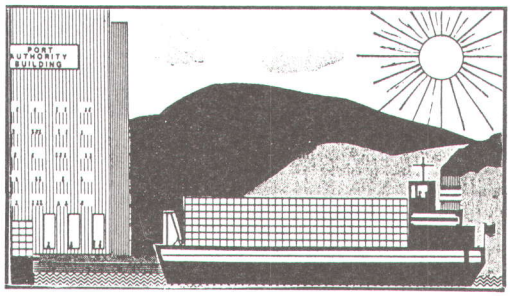
During the 1820s the economy of the colony was becoming diversified though it still remained very basic. Imports arrived from Britain, India, Mauritius and Batavia while exports were shipped to Britain and Sydney. In 1822 goods exported consisted of wheat, oil, whalefins, seal and kangaroo skins, logs of pine and beechwood, salt, wool, horses and hides. Barley, potatoes, whalebone, cedar logs and tallow were included in 1823.

In the *Statistical Returns of Van Diemen's Land 1835–38* compiled from official records in the Colonial Secretary's office, it was recorded 'that the imports for the three years have increased 20 per cent, and the very pleasing fact that the exports for the same period have increased at the astonishing rate of 81 per cent, or from £320 679, in 1835 to £581 475 in 1838.'

The most prominent item imported into Van Diemen's Land, during the very early years of settlement was livestock. By 1837 however, two years after the settlement of Port Phillip, livestock had become the major export line which, together with wool, dominated export trade.

During the 1840s there was a falling off of exports due to a slump in the price of the Colony's staple commodity, wool. There was also a decline in the export of oil and whalebone which were also main commodity export items. The largest increase in trade occurred with the British colonies during this period.

In 1842 the value of imports into Van Diemen's Land was a high £21 per head compared with only £2 10s per head in Britain. The value of exports for the same year, per head of population,



was £10 a head for Van Diemen's Land compared with only £2 for Great Britain and Ireland. By the mid 1800s the value of trade, especially exports, had grown dramatically.

As the colony developed and progressed through the late 1800s the exporting of locally produced commodities became increasingly important to the economy of the State.

19.1 BALANCE OF TRADE, TASMANIA

Year	*Total ($'000)*	*Per head of population ($)*
1850	–30	–0.4
1860	–212	–2.4
1870	–288	–2.8
1880	+286	+2.5
1890	–822	–5.7
1900	+1 074	+6.2
1930–31	–492	–2.2
1940–41	+2 932	+12.0
1950–51	+4 626	+15.9
1960–61	+9 918	+27.9
1970–71	+113 451	+290.7
1980–81	+333 163	+783.5

By 1880 the value of exports had exceeded the value of imports. This balance of trade (excess of exports over imports) see-sawed over the following five decades then stabilised over the period 1937–38 to 1948–49 with exports once again exceeding the value of imports. From 1949–50 to 1954–55 the balance fluctuated once again but from 1955–56 the value of exports has consistently exceeded the value of imports. As a result of this healthy balance of trade the State plays an important role as an earner of export income for Australia.

In 1985–86 the total value of exports from Tasmania was $2 160 million of which 42 per cent resulted from foreign exports. By 1986–87 foreign exports had totalled $1 099 million in value, an increase of 22 per cent on the previous year.

19.1 TASMANIA'S TRADING PARTNERS

From the earliest days of Tasmania's settlement the United Kingdom was the main overseas market for the State's exports. However, over the last 20 years or so Tasmania's overseas markets have changed markedly.

19.1.1 Market Changes

In 1957–58 Tasmania's seven major trading partners in terms of the value of goods exported were as follows:

- United Kingdom $18.6 million
- United States of America $4.0 million
- India $3.7 million
- Italy $2.8 million
- France $2.8 million
- Japan $2.8 million
- Federal Republic of Germany $2.4 million

A decade later Thailand and the Philippines had also become predominant markets.

During the late 1960s Japan became the principal recipient of Tasmanian exports when it substantially increased its iron-ore requirements. In the twelve months to June 1968, Japanese importers spent a total of $9 million on Tasmanian goods and the following year this had jumped to $17 million, most of which was for iron-ore.

The new ranking of Japan, United Kingdom and the United States persisted until 1972–73 when the UK slipped behind the U.S. In 1975–76 the United Kingdom was replaced by Indonesia, and Malaysia became an important market in 1976–77 when it increased its intake of tin concentrates from Tasmania.

More recently Belgium–Luxembourg has become an important market for Tasmanian lead concentrates and greasy wool. Between 1984–85 and 1986–87 exports to this market increased five fold, from $7.4 million to $39.6 million, making it one of Tasmania's top seven trading partners.

19.1.2 Main Trading Partners

Countries bordering the Pacific Ocean constitute Tasmania's main trading partners. Japan, United States, Malaysia, Indonesia, Taiwan and Hong Kong now provide the markets for 70 per cent of Tasmania's exports.

Japan

In 1986–87 Tasmania exported a total of $432.1 million worth of goods to Japan. This represented 39 per cent of the total value of Tasmania's foreign exports.

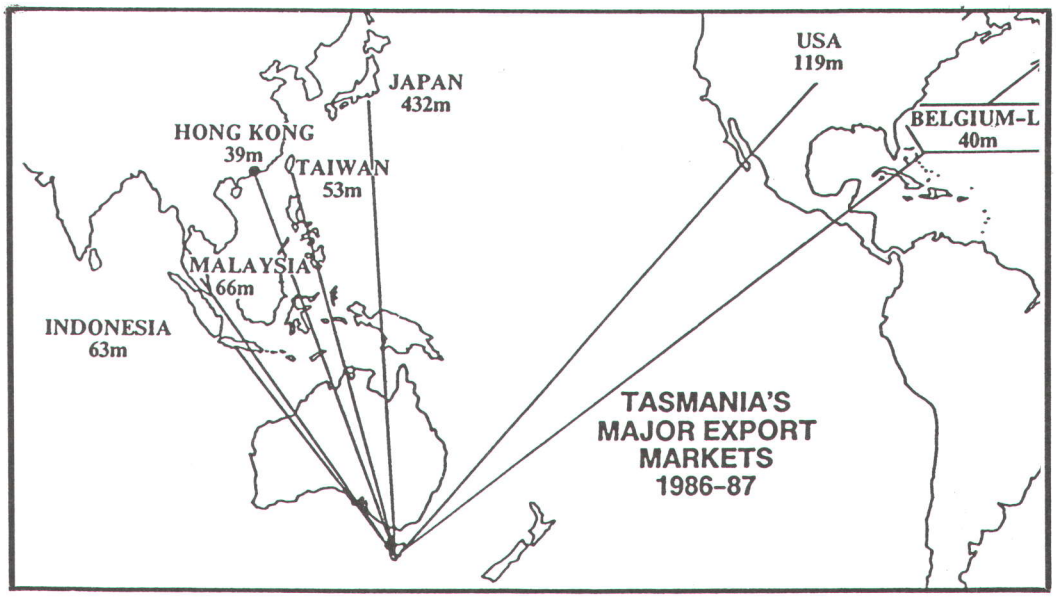
19.2 TASMANIAN EXPORTS TO JAPAN, 1986–87

Commodity	*Quantity (tonnes)*	*Value ($'000)*
Abalone	960	29 906
Cheese	2 887	5 355
Ferro-alloys	6 539	4 516
Meat — Beef and veal	2 669	8 312
— Lamb and mutton	1 462	2 383
— Other	137	500
Milk, dried	990	1 160
Onions, fresh	384	182
Ores and — Copper	94 320	37 433
concentrates — Iron ('000t)	1 398	49 894
— Lead	31 852	12 145
Wool, greasy	2 112	10 730
Zinc	17 738	21 710
Restricted items (*a*)	—	229 655
Other	—	18 199
Total	—	432 080

(*a*) Comprises the value of items for which details are not publishable, mainly woodchips and aluminium.

United States of America

The major commodity exported to the United States of America is zinc. In 1986–87 31 336 tonnes were exported, compared with 27 544 tonnes the year before. In value, this represented nearly 37 per cent of total exports to this market. Over the three year period, 1984–85 to 1986–87, the total value of exports to the United States of America increased by almost 36 per cent, due mainly to demand for beef and veal, cheese and aluminium.



19.3 TASMANIAN EXPORTS TO THE UNITED STATES OF AMERICA, 1986-87

Commodity	*Quantity (tonnes)*	*Value ($'000)*
Abalone	69	2 132
Beef and veal	5 488	13 785
Cadmium	239	772
Casein	256	914
Cheese	1 997	5 348
Ferro-alloys	23 600	7 883
Lamb & mutton	602	1 664
Lead concentrates	12 824	12 778
Machinery	–	674
Milk, dried	943	1 366
Oil seeds	2 137	1 606
Rock lobster	69	2 139
Textiles	–	571
Wool, greasy	1 108	5 100
Zinc	31 336	43 379
Restricted items (*a*)	–	15 271
Other	–	3 223
Total	–	118 605

(*a*) Comprises items for which details are not publishable.

19.4 TASMANIAN EXPORTS TO MALAYSIA, 1986-87

Commodity	*Quantity (tonnes)*	*Value ($'000)*
Apples, fresh and chilled	2 083	1 656
Ferro-alloys	2 601	968
Meat, fresh or frozen	192	170
Paper	1 247	1 216
Tin concentrates	12 581	47 877
Zinc refined	4 765	6 139
Restricted items (*a*)	–	6 771
Other	–	958
Total	—	65 755

(*a*) Comprises items for which details are not publishable.

Malaysia

Tasmania's most valuable export to Malaysia is tin concentrates. In 1986–87 the value of this commodity accounted for almost 73 per cent of the total value of Tasmania's exports to Malaysia.

19.2 VALUE OF OVERSEAS TRADE

Tasmania has a healthy balance of overseas trade. The value of exports in excess of imports has increased over recent years by more than 30 per cent. In 1986–87 it was $1 804 per head of mean population, an increase of 34 per cent from 1985–86. While the value of exports between 1985–86 and 1986–87 rose by 22 per cent, imports over the same period fell by over 3 per cent. This downturn in the value of imports is due mainly to decreases in the importation of motor cars, textiles, petroleum and power generating machinery.

19.5 BALANCE OF OVERSEAS TRADE

Year	Total ($'000)	Per head of mean population ($)
1984–85	451 699	1 028
1985–86	600 613	1 345
1986–87	810 283	1 804

Compared with the rest of Australia, Tasmania has performed more than creditably. Per head of population, Tasmania has imported less and exported more than Australia as a whole.

19.6 VALUE OF FOREIGN TRADE, 1986–87 ($'000)

Country or country group	Exports	Imports
Association of South East Asian Nations (ASEAN) —		
Indonesia	63 383	147
Malaysia	65 755	142
Philippines	10 689	1 007
Singapore	26 663	29 934
Thailand	15 834	2 491
European Economic Community (EEC) —		
Belgium-Luxembourg	39 569	2 509
Denmark	644	863
France	12 219	5 231
Germany, Federal Republic	24 462	17 337
Greece	3 540	254
Ireland	879	233
Italy	10 364	8 636
Netherlands	13 626	5 225
Portugal	639	235
Spain	4 846	809
United Kingdom	23 909	14 525
Other major trading partners —		
Japan	432 080	40 124
United States of America	118 605	34 567
Hong Kong	38 791	1 192
New Zealand	20 039	24 696
China-Excluding Taiwan Province	32 515	2 287
Taiwan Province	52 946	6 957
Canada	9 381	43 251

19.3 COMMODITIES TRADED

19.3.1 Commodities Exported

The once valuable export commodity of fresh apples has declined from 83 544 tonnes in 1964–65 to only 11 656 tonnes in 1986–87.

A rapid increase in the export of live sheep overseas has occurred in the past 20 years. In 1964–65 only 12 sheep were exported in contrast to 299 448 in 1986–87. Since 1984–85 alone, the number has more than doubled from 143 017, representing an increase in export value of $3.6 million over the three year period.

A lucrative market has been found for Tasmanian angora goats. In 1986–87, 1 275 angora goats valued at $2.2 million were exported to New Zealand. This market represents over 90 per cent of the total export market for Tasmanian goats.

19.7 TASMANIAN OVERSEAS EXPORTS, 1986–87

Commodity	Unit	Quantity	Value ($'000)
Apples	t	11 656	7 810
Casein	t	256	914
Cheese	t	6 968	16 556
Ferro-alloys	t	71 579	28 793
Fish, crustaceans and molluscs —			
Abalone	t	1 751	52 991
Rock lobster	t	229	5 702
Scallops	t	344	4 417
Floor coverings	sq m	22 852	818
Food and beverages	t	2 053	4 075
Hides and skins —			
Cattle and calf	t	130 352	7 820
Sheep and lamb	t	973 268	8 006
Live animals —			
Cattle	no.	878	426
Sheep and lambs	no.	299 448	6 700
Goats	no.	1 410	2 334
Machinery	–	–	6 064
Malt extract	t	3 385	2 872
Meat	t	16 263	41 458
Milk, dried	t	3 606	4 294
Oil seeds and oleaginous fruit	t	3 491	2 848
Onions, fresh	t	25 234	10 178
Ores and concentrates —			
Copper	t	94 326	37 433
Iron	'000t	1 398	49 894
Lead	t	75 460	57 170
Tin	t	12 581	47 877
Paper	–	–	8 993
Refined metals —			
Cadmium	t	1 879	3 234
Zinc	t	164 211	208 516
Other	t	–	1 674
Tallow	t	5 701	2 100
Textile fabrics	–	–	2 572
Timber	cu m	8 919	4 868
Wool, greasy	t	12 177	56 156
Restricted items (*a*)	–	–	352 343
Other overseas exports	–	–	51 904
Total overseas exports	—	—	1 099 808

(*a*) Comprises the value of all export items for which details are not available for separate publication. This comprises mainly woodchips and aluminium.

One of Tasmania's most valuable export commodities is ores and concentrates. From 1975–76 to 1979–80 the value of ores and concentrates increased 169 per cent. In 1986–87 all ores and concentrates were worth $192.4 million to the State. Refined zinc is also a big export earner for Tasmania. Between 1985–86 and 1986–87 the value of zinc exports increased 35 per cent to $208.5 million.

19.3.2 Commodities Imported

19.8 TASMANIAN OVERSEAS IMPORTS, 1986–87

Commodity	*Unit*	*Quantity*	*Value ($'000)*
Antiques	–	–	993
Chemicals	–	–	26 275
Clay (Bentonite, Kaolin, etc.)	t	18 341	3 081
Fertilisers, crude	t	56 179	3 376
Machinery —			
Power generating	–	–	5 325
Specialised	–	–	24 570
Metal working	–	–	2 665
General industrial equipment	–	–	21 399
Office and automatic data processing	–	–	571
Telecommunication and sound recording	–	–	1 434
Electrical apparatus and appliances	–	–	9 120
Other	–	–	174
Metal	–	–	12 173
Motor cars and commercial vehicles	no.	1 924	15 731
Motor cycles	no.	243	509
Non-metallic mineral manufacture	–	–	4 513
Nuts, edible	t	476	2 650
Paper and paper products	–	–	2 459
Petroleum products —			
Automotive gasoline (petrol)	'000L	25 433	5 366
Fuel oil	'000L	55 995	5 632
Petroleum coke	t	46 500	7 507
Professional and scientific instruments	–	–	2 285
Textile fibres	t	618	2 532
Textile yarns and fabrics	–	–	14 843
Tyres and tubes	–	–	3 397
Wood pulp for paper making	t	77 903	49 291
Other overseas imports	–	–	61 654
Total overseas imports	–	–	289 525

Tasmania's imports from overseas, while continuing to decrease in value, are largely dominated by six main items:

- woodpulp $49.3 m
- chemicals and related products $26.3 m
- specialised machinery $24.6 m
- general industrial machinery $21.4 m
- motor cars and commercial vehicles $15.7 m
- textile yarns and fabrics $14.8 m

In 1986–87 these items comprised 53 per cent of the value of all goods imported for use in the State.

19.4 TASMANIAN PORTS

Tasmania has a number of ports capable of accommodating overseas vessels; they are sited on the Derwent and Huon rivers in the south (Hobart and Port Huon); in Spring Bay on the east coast; on the Tamar River in the north (Inspection Head, Long Reach and Bell Bay); on the Mersey River (Devonport), in Emu Bay (Burnie) and at Port Latta, all in the north-west. All these ports provide depths of approximately nine metres or more of water at berths; Port Latta provides a depth of 16 metres nearly one and a half kilometres off-shore.

Interstate and intrastate trade passes through the main ports of Hobart, Launceston, Devonport and Burnie as well as through ports at Strahan, Stanley, Ulverstone, Currie (on King Island) and Lady Barron (on Flinders Island).

19.9 TASMANIAN PORT TRADE, 1986–87 (mass tonnes)

Port	*Inwards*	*Outwards*	*Total*
Hobart	1 098 551	1 570 806	2 669 357
Launceston	1 696 248	2 994 064	4 690 312
Devonport	422 166	459 028	881 194
Burnie	556 317	923 323	1 479 640

19.4.1 Hobart

The port at Hobart is situated on the Derwent River in the Sullivan's Cove and Macquarie Point area. Sullivan's Cove is u-shaped with 610 metres separating the southern and northern arms. The Macquarie Point area has become the major centre of port activity and has been provided with modern cargo handling equipment, including a new container handling gantry crane and a 254 tonne fully mobile crane.

The port of Hobart comes under the jurisdiction of the Marine Board of Hobart, an authority which manages several other Tasmanian ports including Self's Point on the Derwent, Port Huon, Spring Bay, St Helens and Strahan.

The Board has been responsible for many recent developments at the port including the completion of a workshop and port control tower complex. The tower provides a 360 degree view of the port area and enables shipping movements and cargo on the wharf to be kept under visual observation for 24 hours a day. In addition a new container-handling gantry crane began operation in March 1987 servicing the Macquarie Nos. 4 and 5 berths. The introduction of this facility has resulted in increased visits of overseas vessels and is backed up by over three hectares of wharf area for container stacking, and a rail track over 300 metres long.

In total the port provides three roll on-roll off berths, five general cargo berths, two container/general berths, a bulk wheat berth, a bulk petrol berth, two docks for the use of fishing vessels and small craft and slipyard facilities for vessels up to 1 200 tonnes.

The major Tasmanian users of the port are the Electrolytic Zinc Company and Australian Newsprint Mills, both of whom export much of their produce directly overseas. In 1986–87 205 443 tonnes of paper left ports under the jurisdiction of the Marine Board bound for interstate and overseas markets in South-East Asia and Europe, while 186 957 tonnes of non-ferrous metal were exported to east Asia, South-East Asia, America, Japan, west India and mainland Australia. Wood products were the main exports through Hobart Marine Board ports — with most of the 834 448 tonnes being shipped to Japan, South-East Asia and mainland Australia.

Major imports to Hobart in 1986–87 included 433 933 tonnes of metals and ores from interstate and North America, 271 982 tonnes of petroleum products from the mainland and the Middle East and 84 554 tonnes of crude fertiliser from the Pacific Islands, South-East Asia, North America and the mainland.

In total almost 2.7 million tonnes of cargo was moved through all ports under the jurisdiction of the Hobart Marine Board in 1986–87. 501 vessels visited the port of which 147 were roll on-roll off and 96 were dry bulk carriers.

19.4.2 Launceston

The Port of Launceston is situated on the River Tamar. At its mouth deep water and broad expanses of river provide a valuable natural harbour. In this area, encompassing Bell Bay, Inspection Head and Long Reach, are located the major activities of the Port of Launceston. A tidal range of up to 3.6 metres creates strong tidal currents, which by natural scouring eliminate the need for any maintenance dredging in the lower reaches of the river.

The Port of Launceston Authority is responsible for all port activities on the River Tamar and handles a range of cargo and vessels, mainly at the Bell Bay berth in addition to shipbuilding and repair work.

In 1986–87 509 trading vessels visited the port and total cargo handled by the Authority's facilities was almost 4.7 million tonnes, up 360 000 tonnes on 1985–86. Major exports included ferro-manganese and sinter, woodchips, aluminium and onions. Onions are providing a valuable cargo asset for the port with a total of 40 139 tonnes exported, the majority with the Polish Ocean Line and European Conference vessels. A record amount of woodchips from Forest Resources and Associated Pulp and Paper Mills was also exported through Bell Bay in 1986–87. The total of 2.2 million tonnes was an increase of 19 per cent on the previous year.

Major imports included manganese ore, coke, pitch, quartzite and limestone for the Tasmanian Electro Metalurgical Company at Bell Bay, and wheat. During 1986–87 wheat imports rose by 14.3 per cent to 20 843 tonnes.

During 1986–87 redevelopment and reclamation work at Bell Bay multipurpose No. 5 berth was completed. The berth is now 314 metres long and can accommodate one large or two smaller vessels. The No. 5 berth is run by Bell Bay Cargo Services, an amalgamation of the Port of Launceston Authority and the Stevedoring Company Conaust (Tasmania) Pty Ltd, designed to increase efficiency and cost-effectiveness in the services provided.

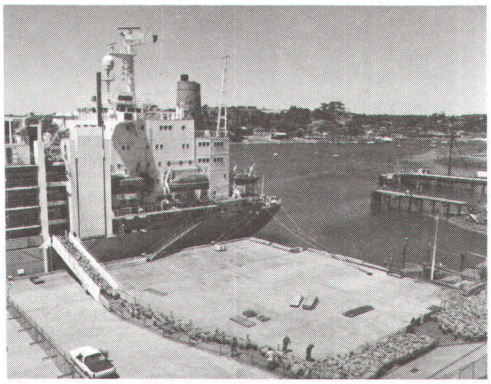
19.4.3 Devonport

The Port of Devonport is situated on the Mersey River within two kilometres of the coast. The entrance is sheltered by Mersey Bluff on the west and by a retaining wall extending over half a kilometre northward from the eastern shore of the river. The river was always a natural harbour for small craft and its development as a major port by extensive dredging and engineering works has resulted in a secure harbour for large ships.

The port is controlled by the Port of Devonport Authority which also manages the local airport. Over recent years the port's pattern of shipping has changed from a general cargo base to more specialised trading for which facilities

are provided such as 42 000 cubic metres of cold storage to accommodate its main export users, Associated Pulp and Paper Mills, Edgells, Goliath and the TT Line.

During 1986–87, 433 ships docked in the port and 881 194 tonnes of cargo were handled at the berths. Cement products were the major export item with 260 774 tonnes leaving the port for Melbourne and Sydney. Frozen food exports were also important, increasing 36 per cent to 31 133 tonnes, and exports of timber increased to 18 653 tonnes. Major imports included 163 137 tonnes of gas and fuels, 34 291 tonnes of wheat and 30 731 tonnes of fruit. In addition 27 056 tonnes of salt were unloaded for use at Associated Pulp and Paper Mills and over 18 000 tonnes of paper pulp were unloaded from Canada.



Sheep boarding the Mawashi Tabuk

Photo: *Port of Devonport Authority*

Devonport has also become the major port for l.ve sheep exports from Tasmania with approximately 300 000 sheep boarding the *Mawashi Tabuk* in 1986–87 bound for the Middle East.

19.4.4 Burnie

The ports of Hobart, Launceston and Devonport all lie within the shelter of rivers but the Port of Burnie, on Emu Bay, was built out into the open sea in the lee of Blackman Point. Protection from the potentially rough seas of Bass Strait is afforded by two large breakwaters. Burnie is a deep-water port with no tidal restrictions, except occasionally for the larger vessels, and is virtually fog-free. It is in operation 24 hours every day, and vessels can be at full speed 20 minutes after departure. All wharves are connected to the state railway system.

The Burnie Port Authority completed a harbour deepening program in 1986–87 which has enabled safe accommodation of the world's largest containerships and facilitated larger shipments of mineral concentrates. Jones Pier was dredged to 11.5 metres and the bulk berth to 11 metres.

Total cargo shipped through Burnie was 1 479 640 tonnes in 1986–87, an increase of 5.5 per cent on the previous year. 67 372 cargo containers passed through the port confirming its status as Tasmania's largest container handling port.

Regular users include Australian National Line, Union Bulkships, Brambles, Stateships, Malaysian International Shipping Corporation, and the Australian–Europe Shipping Conference which operates some of the largest containerships in the world.

In 1986–87 general cargo was the biggest import item through Burnie. The total of 214 332 tonnes unloaded was the biggest in the State and an increase of 8.5 per cent on 1985–86. Other major imports included 74 267 tonnes of ilmenite, 71 932 tonnes of acid for use by local industry, and 66 643 tonnes of fuel oil. Almost half of total imports (48 per cent) come from Victoria while other places included Western Australia, intrastate, New South Wales, North America and South-East Asia.

Mineral concentrates were the biggest export commodity in 1986–87 with 65 per cent of the total of 411 582 tonnes bound for markets such as Japan, South-East Asia and east Asia. Paper was also a significant item with 97 per cent of the total of 188 942 tonnes exported to the mainland. Other major items to leave through Burnie included 112 520 tonnes of fruit and vegetables and 60 638 tonnes of general cargo.

19.5 RETAIL TRADE

Retailing provides a distribution service to the public. The competitive nature of this service ensures that it adapts readily to changing technological, social and economic conditions. The history of retailing, over the past 55 years, illustrates the industry's ability to change according to conditions.

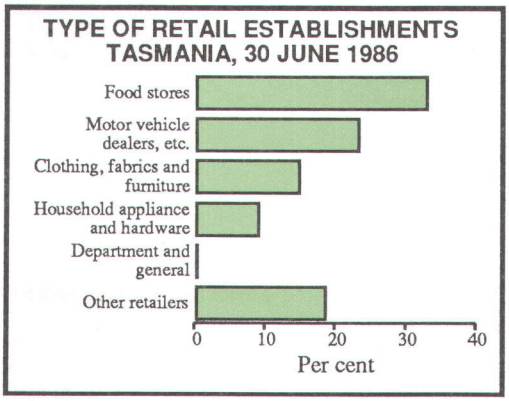
At 30 June 1986 there were 4 592 retail establishments operating in Tasmania — one for every 95 residents. One third were food stores and a further 23 per cent were motor vehicle and petrol retailers.

Compared with 1980, there were 396 additional retailers in the State with a particularly marked increase in the number of fish, take away food shops and milk bars. There was also an increase of 130 household appliance stores and 36 newsagents.

19.10 RETAIL ESTABLISHMENTS, TASMANIA

Description	June 1980	June 1986
Department stores	17	17
General stores	23	6
Total	40	23
Men's and boys' wear stores	96	82
Women's and girls' wear stores	301	319
Footwear stores	95	95
Fabrics and household textile stores	82	106
Floor coverings stores	32	20
Furniture stores	81	70
Total clothing, fabrics and furniture stores	687	692
Domestic hardware stores	58	72
Watchmakers and jewellers	79	79
Music stores	35	33
Household appliance stores	107	237
Total household appliance and hardware stores	279	421
New motor vehicle dealers	290	319
Used motor vehicle dealers	132	129
Service stations	360	355
Smash repairers	184	176
Motor cycle dealers	19	25
Boat and caravan dealers	43	34
Tyre and battery retailers	37	37
Total motor vehicle dealers, petrol and tyre retailers	1 065	1 075
Grocers, confectioners and tobacconists	669	629
Butchers	243	223
Fruit and vegetable stores	32	52
Liquor stores	20	22
Bread and cake stores	44	47
Fish shops, take away food and milk bars	366	549
Total food stores	1 374	1 522
Pharmacies	140	155
Photographic equipment stores	18	18
Sports and toy stores	100	107
Newsagents, stationers and booksellers	151	187
Second hand goods dealers	116	113
Nurserymen and florists	90	113
Retailing n.e.c.	136	166
Total other retailers	751	859
Total retail establishments	4 106	4 592

General stores declined by almost 74 per cent, down from 23 to 6. Other stores to decline in number included grocers, confectioners, tobacconists, butchers and men's and boys' wear.



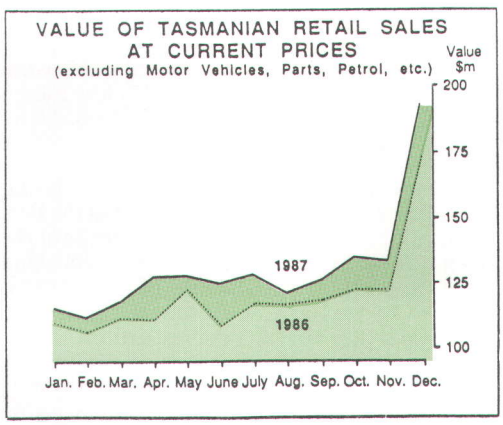
In the six years from 1980, employment in the industry grew by 8 per cent to 23 213.

In June 1986, 37 per cent of those employed in retailing worked in food stores. Motor vehicle dealers and petrol retailers were also major employers.

In the same period Tasmania recorded the lowest increase in annual retail turnover of all the States. In terms of constant prices, turnover rose only 14 per cent compared with an average increase across Australia of 24 per cent.

Seasonal and Spatial Patterns in Retail Sales

Retail trading is demonstrably heavily subject to environmental influences such as the general level of disposable income of the community, perceptions about the economy, overseas exchange rates and changes in government imposts on the sale of goods and services.



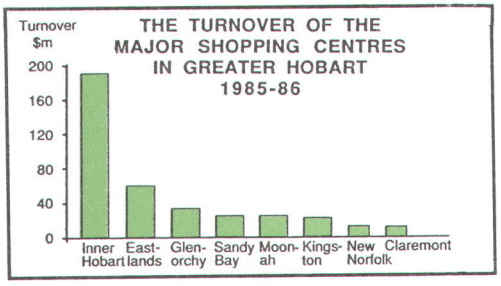
The largest of the short term effects result from seasonal factors. There are peaks in turnover before Easter and especially before Christmas and stores located near tourist attractions have a higher turnover during the summer months of the tourist season.

Most types of stores have their own seasonal patterns. For example, during the late autumn and early winter, with the onset of colder temperatures, sales at clothing and electrical goods stores increase.

In the longer term, some spatial trends have also become evident.

Despite retailing activity being concentrated in the centres of population, the central business District has become less important within the cities. In 1968–69 about 46 per cent of Greater Hobart retail turnover was in the inner city. By 1985–86 this had decreased to only 24 per cent.

This decline in retail turnover has been largely in response to the development and expansion of regional shopping centres, in particular at Rosny, Glenorchy, Kingston and Claremont, as well as a number of other smaller shopping centres. This trend is unlikely to stop with new shopping centres such as Northgate in Glenorchy and Mayfair in Sandy Bay having recently opened.



A similar range in turnover is evident among shopping centres in Launceston with 28 per cent of the total retail turnover of Greater Launceston coming from the inner city. The next largest centre, King's Meadows, has a turnover of $27 million compared with a $159 million turnover of the inner city.

19.6 PRICES AND PRICE CHANGES

Prices of most goods are always going up. Those who do the weekly shopping know that $10 this week seemed to have bought less than $10 last month. In some countries the change is much more dramatic, with price rises daily.

But even in Australia prices have risen enormously, depending on the time frame. For instance, a haircut for $10 in 1987 would have cost about 30¢ in 1901; an item costing 47¢ in 1901 would cost about $14.87 bought in 1987. That's an increase of over 3000 per cent! Even since 1981 retail prices have risen by more than 60 per cent.

19.11 AVERAGE RETAIL PRICES OF SELECTED FOOD ITEMS: HOBART (*a*) (*b*) (Cents)

Item	*Unit*	*1979*	*1987*	*% change*
Groceries, etc. —				
Bread, ordinary white, sliced	680 g	57	106	86
Flour, self-raising	2 kg	110	185	68
Tea	250 g	80	154	90
Coffee, instant	150 g	270	532	97
Sugar	2 kg	85	164	93
Rice	1 kg	78	102	31
Breakfast cereal, corn based	500 g	82	205	150
Peaches, canned	825 g	76	155	104
Potatoes	1 kg	40	70	75
Onions	1 kg	53	123	132
Dairy produce, etc. —				
Butter	500 g	95	184	94
Margarine, table, poly-unsaturated	500 g	92	139	51
Eggs	1 doz (55 g)	139	195	40
Bacon, rashers, pre-pack	250 g	150	261	74
Milk, fresh, cartons, delivered	2–600 ml	49	106	116
Meat —				
Beef —				
Rump steak	1 kg	580	866	49
Silverside, corned	1 kg	380	577	52
Lamb —				
Leg	1 kg	333	435	31
Loin chops	1 kg	349	498	43
Pork, leg	1 kg	415	602	45

(*a*) The table units are not necessarily those for which the original price data were obtained; in such cases, prices have been calculated for the table unit.
(*b*) Prices are the averages of the recorded prices for the four quarters of each calendar year.

Nowhere are changing prices more evident than in the area of foodstuffs. For instance in the eight years to 1987 the price of milk delivered in cartons has more than doubled and corn-based breakfast cereals have increased in price by over 150 per cent.

However, these price changes cannot be looked at in isolation; factors such as increased wages and production costs also need to be considered. Price indexes are a means of achieving this, allowing a more accurate measure of changing prices.

The retail price index for example is often used by government and authorities such as the Conciliation and Arbitration Commission to measure price changes over time.

19.12 RETAIL PRICE INDEX NUMBERS SIX STATE CAPITAL CITIES COMBINED

Year	*Index number*
1901	47
1911	53
1921	90
1951	167
1981	926
1987 (*a*)	1 487

(*a*) Weighted average of eight capital cities.

The retail price index most commonly used is the Consumer Price Index.

19.6.1 Consumer Price Index

This is the householder's guide to price changes. It measures quarterly changes in the price of goods and services that account for a high proportion of expenditure by metropolitan wage and salary households. It is made up of eight main groups of expenditure items; food, clothing, housing, household equipment and operation, transportation, tobacco and alcohol, health and personal care, and recreation and education. Each of these groups is indexed separately for specific purposes, or as is the usual practice, grouped together as a summary of the changes in prices affecting the wage-earner's weekly expenditure.

Treated as a group the Index shows a steep rise commencing in the early 1970s, and continuing. But all groups of prices have risen considerably. Since 1980–81 the health and personal care group has risen least, while the tobacco and alcohol group has risen most.

The Consumer Price Index does not measure the 'cost of living'. It measures price changes in a 'basket of goods' that represent much of a wage and salary earner's expenditure. The actual mode of living will vary from household to household just as standards of living vary considerably.

19.13 CONSUMER PRICE INDEX, HOBART

Group	*1980–81*	*1986–87*
Food	100.0	158.9
Clothing	100.0	151.9
Housing	100.0	157.8
Household equipment and operation	100.0	160.9
Transportation	100.0	176.9
Tobacco and alcohol	100.0	188.6
Health and personal care	100.0	138.4
Recreation and education	100.0 (*a*)	146.3
All groups	100.0	162.5

(*a*) March quarter 1982 = 100.0.

However, it is the most accurate measure of inflation as meaning an upward trend in the general internal price structure of an economy. To be strictly correct though, no one index can be regarded as the correct measure of inflation. That is why a number of indexes have been constructed such as indexes of building materials and materials used in the manufacturing industry.

19.7 REFERENCES

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Price Index of Metallic Materials (6410.0), monthly.

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Port of Devonport Authority, *Annual Report* 1987.

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TASMANIAN STATISTICAL DIVISIONS

The State, for statistical purposes, is analysed by division which is basically a group of whole municipalities. The traditional Tasmanian statistical divisions, in use for over 50 years, were exposed to searching scrutiny in 1971 and the decision was taken to introduce a new structure, to be applied to statistics in respect of periods commencing on or after 1 July 1972.

History of Statistical Divisions

The groupings of administrative areas into divisions for statistical purposes can be found in annual volumes of the *Statistics of Tasmania* dating back to the nineteenth century. The administrative areas included: police districts, registration districts, electoral districts, and municipalities. The boundaries of these areas were subject to periodic changes. The *Local Government Act* 1906 provided a basis for the whole State coming under uniformly constituted local government and gradually the divisional grouping of administrative areas was confined, in official statistics, to municipalities. As a result of this Act, fixed local government area (municipality) boundaries were delineated in 1907 by a commission specially set up for the purpose. These boundaries remained generally unchanged from 1907, although there have been numerous relatively minor boundary changes, to 1919 when the old municipalities of 'Hobart', 'Queenborough' and 'New Town' were combined to form the new municipality of 'Hobart'.

In July 1985 the old municipalities of 'St Leonards', 'Lilydale', and 'Launceston' amalgamated to form the new 'City of Launceston'. In July 1986 the west coast municipalities of 'Gormanston' and 'Queenstown' amalgamated to form the new municipality of 'Lyell'.

In 1919, groupings of local government areas used were very similar to those still used in 1971; in some series Hobart, Launceston and Glenorchy were separately specified as components of an 'Urban Division' distinct from the region in which each was located.

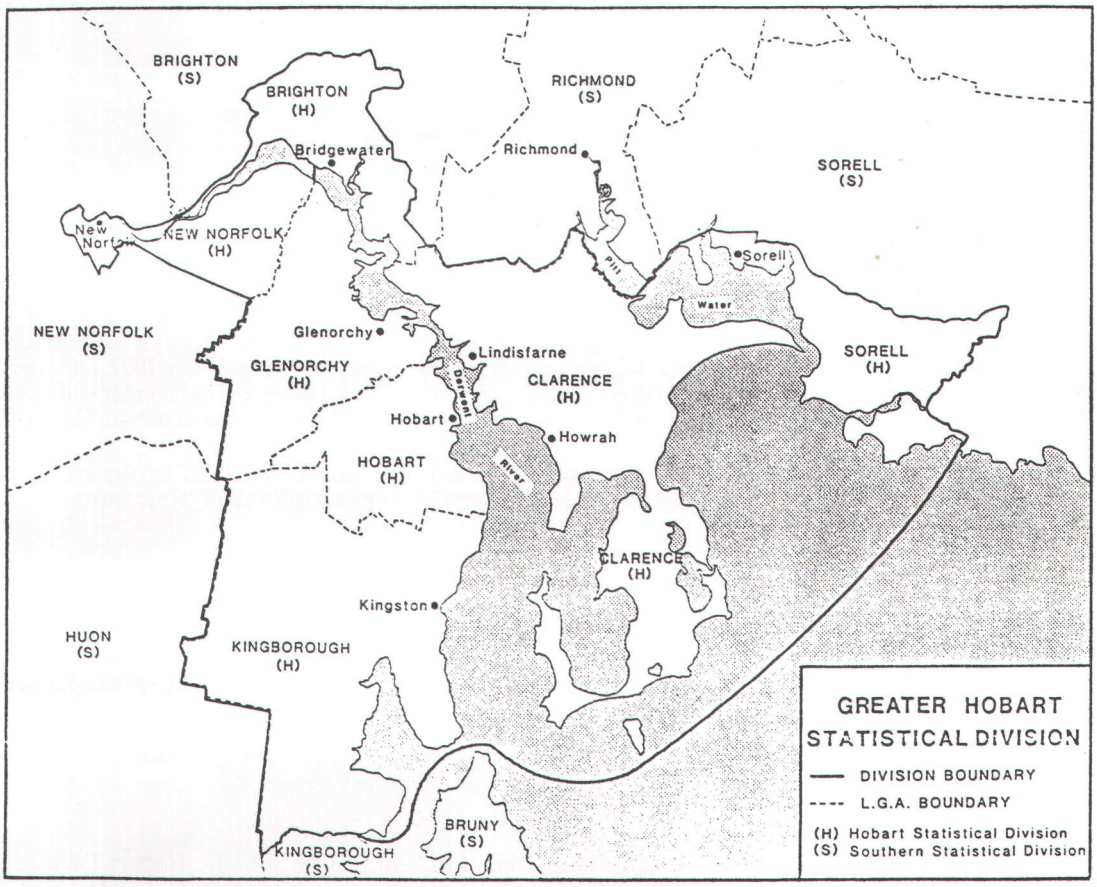
The basis of these 1919 groupings can only be inferred since no specific criteria were specified in the records. The Western Division clearly combined the 'west coast' mining municipalities into one entity; the Southern Division seemed to be based on orcharding, small fruit and hop areas; while the South Eastern Division was allied more with pastoral and grazing areas. In short, the main determinant may well have been similarity of rural activity (with the Western Division a special case because of its mining activity).

After the 1966 population census, a new division was formed with the title Hobart Division, comparable with similar capital city divisions in other States; its boundaries were drawn wide enough to encompass the expected expansions of the inner urban area for a period of 20 to 30 years. Apart from this, the broad divisional structure in 1971 was very much the same as it had been in 1919.

In 1972 a new statistical division structure, using the three principal urban centres of influence as a basis, was designed. The three urban centres and their areas of influence were: Hobart — South and South-East; Launceston — North and North-East; and Burnie–Devonport — North-West and West. The following divisional structure was then adopted; with Hobart as focus — Hobart and Southern Divisions; with Launceston as focus — Northern Division split into Tamar and North Eastern Subdivisions; and with Burnie–Devonport as focus — Mersey-Lyell Division split into North-Western and Western Subdivisions.

Hobart Division

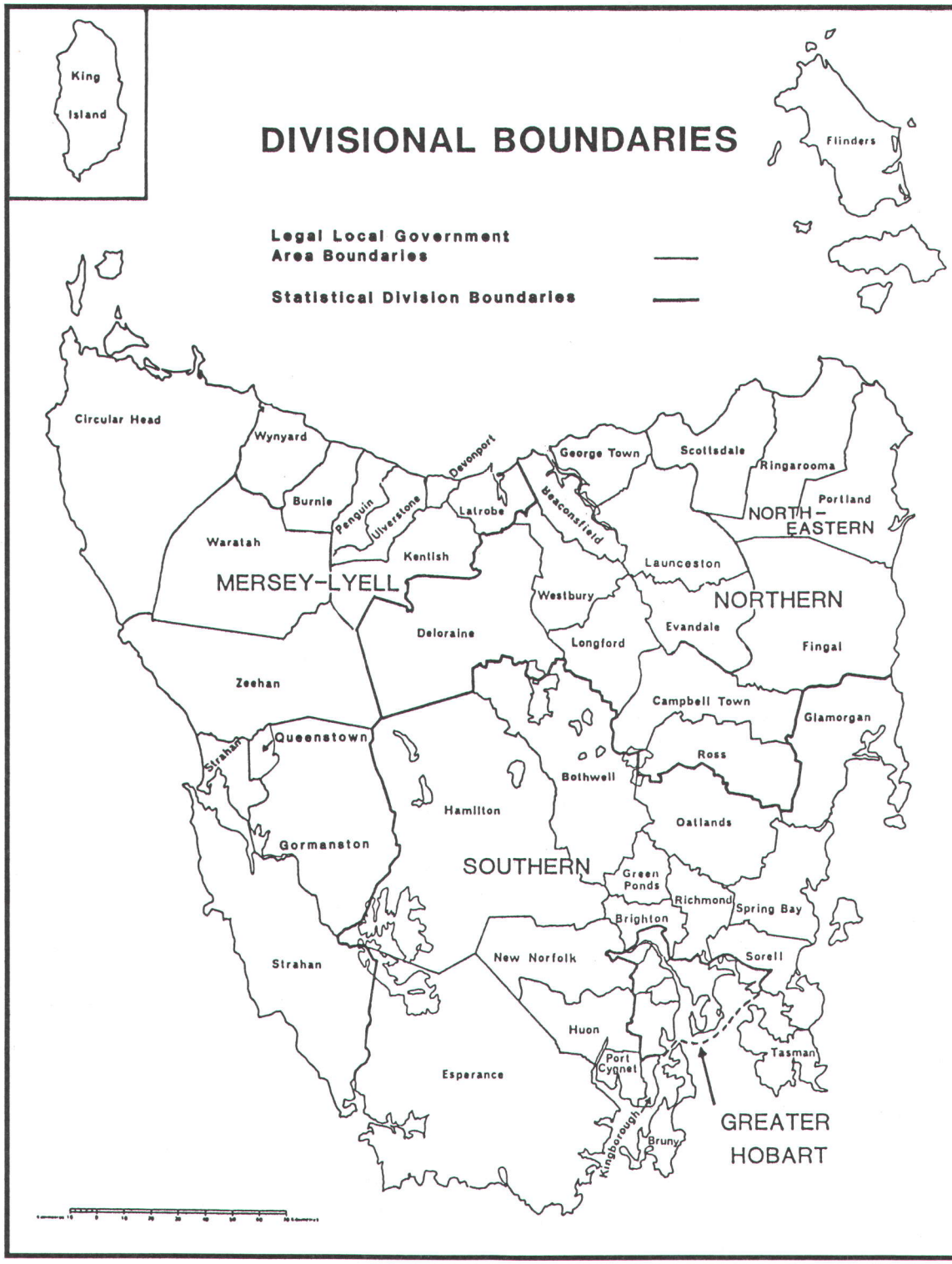
This Division comprises Hobart and Glenorchy Cities, the municipality of Clarence, and parts of four other municipalities: Brighton, Kingborough, New Norfolk, and Sorell. The Division is Tasmania's principal industrial region and the administrative focal point. The Hobart Division boundaries were drawn wide enough to contain the expected outward growth of the inner urban area for a period of 20 to 30 years.

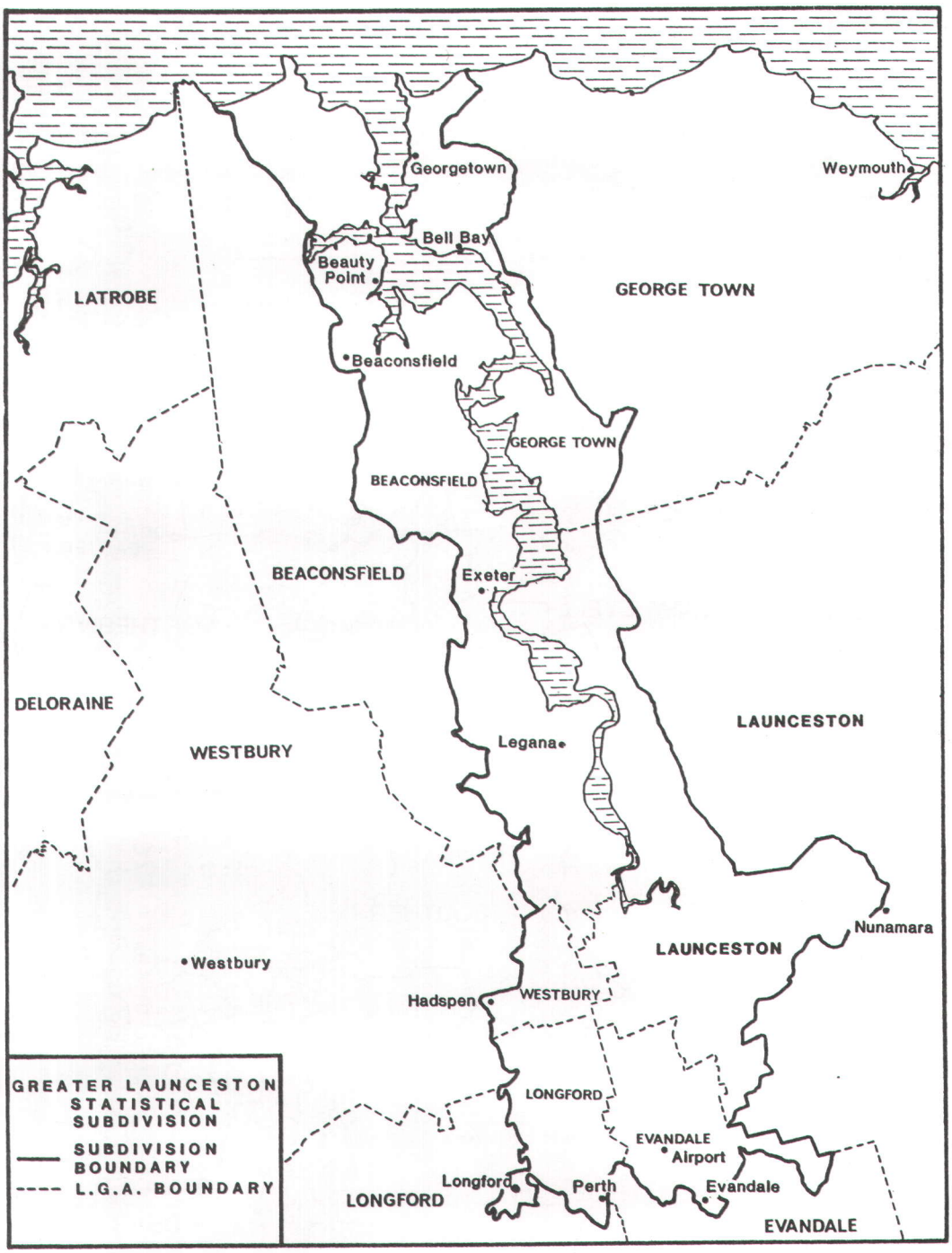


One important component of the Hobart Division is Urban Hobart, defined as the densely settled contiguous parts of the cities of Hobart and Glenorchy, and of the municipalities of Clarence and Kingborough. The boundaries of Urban Hobart and of the Hobart Division do not conform with borders defining local government areas.

Southern Division

Comprises the southern local government authority areas which have Hobart as their urban focus. Predominant activities include orcharding, sheep and cattle grazing, forestry and timber processing.


King Island
DIVISIONAL BOUNDARIES
Flinders
Legal Local Government Area Boundaries
Statistical Division Boundaries
Circular Head
Wynyard
Burnie
Penguin
Ulverstone
Devonport
Latrobe
Beaconsfield
George Town
Scottsdale
Ringarooma
Portland
NORTH-EASTERN
Waratah
Kentish
MERSEY-LYELL
Launceston
Westbury
NORTHERN
Evandale
Deloraine
Longford
Fingal
Zeehan
Campbell Town
Glamorgan
Queenstown
Strahan
Ross
Bothwell
Hamilton
Oatlands
Gormanston
SOUTHERN
Green Ponds
Richmond
Spring Bay
Brighton
New Norfolk
Sorell
Strahan
Huon
Tasman
Port Cygnet
Esperance
GREATER HOBART
Kingborough
Bruny


Georgetown
Weymouth
Bell Bay
Beauty Point
LATROBE
GEORGE TOWN
Beaconsfield
GEORGE TOWN
BEACONSFIELD
BEACONSFIELD
Exeter
DELORAINE
WESTBURY
Legana
LAUNCESTON
Nunamara
LAUNCESTON
Westbury
Hadspen
WESTBURY
LONGFORD
EVANDALE
Airport
Longford
Perth
Evandale
LONGFORD
EVANDALE
GREATER LAUNCESTON STATISTICAL SUBDIVISION
SUBDIVISION BOUNDARY
L.G.A. BOUNDARY

Northern Division

The Northern Division is the region with Launceston as its urban focus.

(i) *Tamar Subdivision:* This is the region dominated by the Tamar Valley. In the centre of this area is Launceston and its suburbs (known as Urban Launceston). This Subdivision includes several major manufacturing industries, port facilities of the northern region and agricultural,pastoral, dairying and forestry industries.

Greater Launceston Statistical Subdivision: A new boundary delineating the Launceston Statistical District was drawn for the purpose of presenting results of the 1976 Population Census. The boundary was drawn to contain the area of expected urban growth over the next two decades and includes the City of Launceston and parts of five other municipalities as shown in the previous map.

Urban Launceston is defined for statistical purposes as the City of Launceston plus the contiguous urban parts of the Evandale, Westbury and Beaconsfield municipalities.

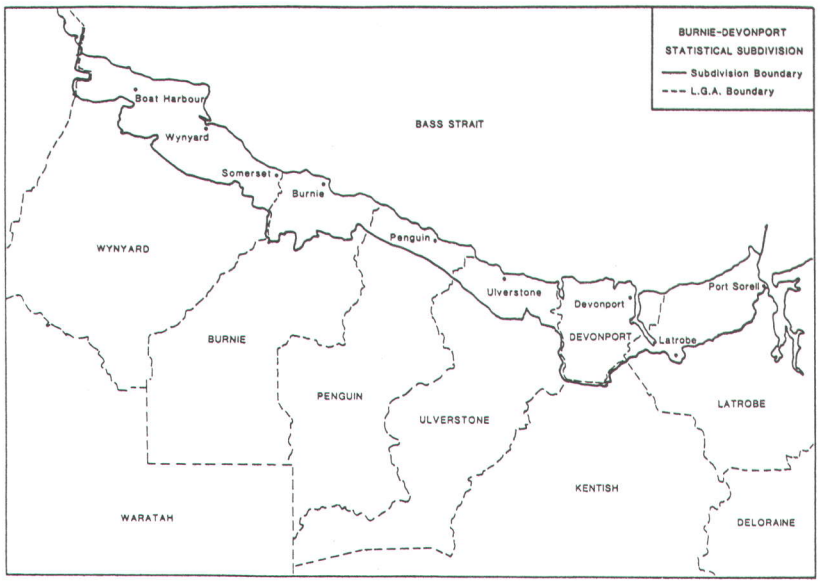
(ii) *North-Eastern Subdivision:* Comprises the outer seven municipalities of the Northern Division. Principal activities include agriculture, dairying, sheep and cattle grazing, forestry and some mining.

Mersey-Lyell Division

This division encompasses the north-west and western portions of the State. The region has a twin urban focus of Burnie–Devonport.

(i) *North-Western Subdivision:* Comprises the municipalities stretching along Bass Strait from Latrobe to Circular Head plus Kentish and King Island. The Subdivision includes several major manufacturing industries and is a principal agricultural, pastoral, dairying and forestry area for the State.

Burnie–Devonport Statistical Subdivision: As with the Launceston Statistical District the Burnie–Devonport Statistical District was drawn to contain the area of expected urban growth over the next two decades. It includes the whole of the municipality of Devonport and parts of the municipalities of Wynyard, Burnie, Penguin, Ulverstone and Latrobe.



(ii) *Western Subdivision:* Contains Tasmania's western municipalities where mining activities predominate.

STATISTICAL SUMMARY

In the following pages, an historical summary of the more important statistics available that relate to Tasmania is shown. Only brief footnotes have been included and readers should refer to publications listed in 'references' at the end of each relevant chapter. Naturally, the range of statistics for early years is very limited. Also, it should be borne in mind that perfect comparability over long periods of time is difficult to attain due to changes in definitions, scope of statistical collections, etc. While major breaks in series are shown, minor changes to series are not indicated and the statistics should be interpreted with this in mind.

Generally, the first year shown on each page is the earliest for which any series on that page is available. Due to space constraints, earlier details for some series are given only for either every five or ten years. Items included have been arranged in chapter order.

(Chapter 5) **Local Government Finance, Tasmania**

Year	*Value of ratable property*			*Revenue Fund ordinary service and business undertakings*		*Loan Fund*
	Land value (a) (b) (c)	*Total capital value (a) (b)*	*Assessed annual value*	*Revenue (d)*	*Expenditure (d)*	*Total debt (b)*
	$ million	*$ million*	*$ million*	*$'000*	*$'000*	*$'000*
1929–30	46.17	101.40	5.51	1 954	1 956	6 502
1939–40	46.16	109.82	6.10	2 174	2 192	6 712
1949–50	50.73	134.70	9.02	3 694	3 696	7 219
1950–51	55.86	155.35	10.24	4 283	4 327	8 534
1951–52	63.43	187.66	11.43	5 357	5 351	10 453
1952–53	69.93	224.91	12.87	6 024	6 048	11 900
1953–54	74.31	252.69	13.84	6 641	6 506	13 600
1954–55	83.58	296.37	15.88	6 972	7 053	15 603
1955–56	93.84	345.27	15.56	6 386	6 596	(e) 15 389
1956–57	130.13	495.31	25.42	7 417	7 261	16 967
1957–58	140.55	553.90	28.23	7 998	7 904	20 192
1958–59	164.66	653.48	33.41	8 837	8 837	22 979
1959–60	179.03	739.35	37.31	9 781	9 762	27 144
1960–61	185.93	808.21	40.04	10 867	10 924	31 285
1961–62	193.52	870.08	42.89	12 097	11 779	36 181
1962–63	216.01	942.88	48.62	13 765	13 256	39 842
1963–64	271.63	1 075.09	57.51	14 792	14 654	44 063
1964–65	290.52	1 140.40	61.27	16 250	16 176	48 368
1965–66	328.50	1 202.22	68.54	17 395	17 085	52 844
1966–67	329.14	1 271.87	72.47	19 594	19 068	57 611
1967–68	351.66	1 350.44	86.35	21 235	20 858	62 821
1968–69	375.02	1 452.38	95.57	23 478	22 790	66 922
1969–70	412.71	1 571.96	102.98	25 914	24 816	71 854
1970–71	442.45	1 691.37	107.78	28 236	27 195	75 752
1971–72	455.06	1 768.07	114.86	31 505	30 985	79 907
1972–73	484.13	1 874.17	124.61	37 000	34 552	84 781
1973–74	512.73	1 995.91	147.41	40 376	38 381	89 766
1974–75	620.86	2 317.03	165.47	52 313	51 830	97 892
1975–76	696.81	2 570.15	185.36	68 345	65 118	109 655
1976–77	932.13	2 902.51	218.86	76 376	69 204	122 950
1977–78	r 1 155.61	3 531.99	260.11	82 607	77 476	136 366
1978–79	r 1 401.17	4 241.72	344.62	92 130	86 286	149 934
1979–80	r 1 865.19	5 678.18	397.69	112 077	113 171	157 300
1980–81	r 2 092.20	6 448.32	435.46	121 769	116 239	165 832
1981–82	r 2 308.99	7 055.27	480.36	137 432	137 549	171 755
1982–83	r 2 597.54	7 701.97	r 524.66	r 161 945	r 161 078	r 174 624
1983–84	2 781.48	8 177.92	589.70	185 765	180 764	175 472
1984–85	2 985.07	8 788.26	666.97	195 654	r 184 930	176 588
1985–86	3 207.6	9 511.2	720.3	2 158.24	2 047.65	1 813.89

(*a*) State Government valuation. (*b*) At 30 June. (*c*) Prior to 1977–78 figures are 'unimproved capital value'.
(*d*) Excludes loans. (*e*) As from 1955–56, the loan debt of Hobart and Launceston Corporations for tramways has been excluded and treated as a direct liability of the Metropolitan Transport Trust.

(Chapter 5) **Gross and Net Loan Expenditure, Tasmania**

Year	Gross expenditure	Net expenditure	Revenue deficit funded (a)	Net loan expenditure per head of population	Year	Gross expenditure	Net expenditure	Revenue deficit funded (a)	Net loan expenditure per head of population
	$'000	$'000	$'000	$		$'000	$'000	$'000	$
1900 to 1904–05 (b)	543	473	–	2.68	1969–70	49 411	45 069	–	116.67
1910–11 to 1914–15 (b)	1 147	1 039	–	5.40	1970–71	52 079	47 393	–	121.75
1920–21	6 181	5 435	–	25.68	1971–72	73 037	66 268	4 350	169.22
1930–31	(c) 2 921	(c) 1 651	–	7.40	1972–73	76 813	67 243	2 378	170.67
1940–41	4 231	2 268	363	9.40	1973–74	73 947	64 603	3 805	162.60
1950–51	30 802	27 465	402	96.86	1974–75	90 060	76 056	7 282	189.15
					1975–76	98 818	81 369	–	200.32
1960–61	33 865	30 611	–	87.38	1976–77	126 223	110 085	9 399	265.26
1961–62	32 521	30 088	112	84.60	1977–78	123 459	104 732	–	250.80
1962–63	33 332	30 511	113	84.58	1978–79	122 451	99 074	1 250	235.44
1963–64	35 354	32 905	161	90.32	1979–80	121 805	92 214	–	217.69
1964–65	35 816	33 352	–	90.65					
1965–66	39 411	36 573	–	98.46	1980–81	114 790	90 579	6 057	212.03
1966–67	40 161	36 636	306	98.15	1981–82	104 436	82 606	7 133	192.20
1967–68	46 054	42 128	1 132	111.62	1982–83	131 845	94 379	34 397	218.17
1968–69	44 458	40 164	1 762	105.02	1983–84	111 074	84 886	4 000	194.11
					1984–85	135 908	90 828	5 644	205.45
					1985–86	153 827	n.a.	n.a.	n.a.

(a) These amounts are included in both Gross and Net Loan Expenditure. The figures shown are a complete record of funded deficits since 1900.
(b) Annual average for the five-yearly period shown.
(c) Includes $1 233 000, the amount re-appropriated to provide for certain deferred revenue charges.

(Chapter 5) **Aggregate Net Loan Expenditure and Public Debt, Tasmania**

Year	Aggregate net loan expenditure to end of year — Purpose: Railways and transport	Hydro-electric works	Roads, bridges, harbours	School buildings and University	Housing advances and construction	Other	Total	Public debt at end of year (a) (at mint par of exchange)	Annual interest liability at current rates of exchange: Amount	Average rate
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	%
1890	6 508	–	3 354	238	–	2 282	12 382	12 866	n.a.	n.a.
1900	7 820	–	5 352	334	–	2 986	16 492	17 022	n.a.	n.a.
1910–11	8 866	–	7 258	488	–	5 034	21 646	22 156	n.a.	n.a.
1920–21	11 702	3 994	10 390	848	206	12 302	39 442	37 552	n.a.	n.a.
1930–31	13 866	7 692	13 540	1 312	412	16 568	53 390	46 778	n.a.	n.a.
1940–41	14 520	13 018	14 412	1 986	902	19 392	64 230	56 332	n.a.	n.a.
1950–51	20 958	40 448	16 214	4 694	9 946	33 468	125 728	114 066	n.a.	3.1977
1960–61	31 126	181 578	35 076	27 266	29 536	87 422	392 004	354 558	n.a.	4.3845
1961–62	31 418	195 206	39 144	30 450	29 190	96 684	422 092	379 252	17 064	4.3948
1962–63	31 296	208 706	42 942	34 048	28 990	106 621	452 603	404 594	19 523	4.4585
1963–64	34 410	222 905	47 704	38 342	28 577	113 570	485 508	432 311	19 790	4.4634
1964–65	34 984	239 419	51 171	42 395	28 244	122 653	518 866	462 302	21 706	4.5890
1965–66	35 789	255 919	55 593	46 832	27 970	133 325	555 428	491 658	23 987	4.7693
1966–67	36 088	273 919	57 486	50 858	27 692	146 021	592 064	524 918	25 940	4.8432
1967–68	36 910	293 919	58 774	54 964	27 217	162 408	634 192	560 893	27 777	4.8879
1968–69	37 170	314 644	59 563	59 387	27 230	176 586	674 580	599 736	30 040	4.9517
1969–70	40 503	337 769	60 686	64 853	26 469	189 370	719 650	637 407	32 939	5.1163
1970–71	42 169	362 269	61 706	70 544	26 104	204 250	767 042	665 397	36 203	5.3928
1971–72	47 199	388 269	62 636	78 952	31 497	224 757	833 310	705 271	39 202	5.5220
1972–73	58 643	410 629	63 176	90 753	36 837	240 516	900 554	749 583	41 620	5.5300
1973–74	67 609	433 629	63 886	102 567	36 228	261 248	965 167	787 618	45 922	5.8300
1974–75	81 033	456 854	64 504	114 219	35 771	288 832	1 041 213	833 862	49 005	6.4100
1975–76	(b) 15 186	486 554	65 559	132 917	37 475	316 692	1 054 383	753 797	53 748	7.1300
1976–77	13 714	517 554	71 407	156 939	40 694	370 933	1 164 561	811 012	60 437	7.4500
1977–78	14 730	540 554	75 526	178 496	42 558	417 616	1 269 481	870 097	68 233	7.8400
1978–79	15 466	557 204	80 526	197 373	48 754	469 324	1 368 648	922 559	73 604	7.9783
1979–80	16 033	569 879	85 338	215 364	58 922	515 499	1 461 035	969 948	80 205	r 8.2690
1980–81	16 136	581 179	89 618	230 191	67 759	568 297	1 553 180	1 020 804	91 494	r 8.9630
1981–82	16 239	604 979	93 156	236 320	78 113	609 374	1 638 181	1 071 606	105 333	r 9.8295
1982–83	17 207	589 979	98 054	252 777	82 788	695 466	1 736 271	1 114 397	116 405	r 10.4456
1983–84	19 398	589 979	102 883	270 511	82 122	760 135	1 825 028	1 154 510	124 349	r 10.7707
1984–85	28 988	569 979	119 593	290 913	81 418	831 039	1 921 930	1 200 687	r 133 617	11.1284
1985–86	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1 246 273	141 077	11.3199

(a) Expenditure under Commonwealth and State Housing Agreements is excluded from Public Debt.
(b) The Tasmanian Government Railways were taken over by the Australian National Railways Commission from 1 July 1975.

(Chapter 5) **Consolidated Revenue Fund: Revenue and Expenditure, Tasmania (*a*) ($'000)**

Year	Revenue	Expenditure	Budget result	Aggregate net deficit at end of year
1891	1 889	1 827	+ 63	497
1901	1 652	1 741	- 89	487
1910-11	1 940	2 034	- 94	490
1911-12	2 169	2 129	+ 40	450
1912-13 (*b*)	2 413	2 192	+ 221	229
1913-14	2 476	2 470	+ 6	223
1914-15	2 488	2 768	- 280	503
1915-16	2 753	2 681	+ 72	432
1916-17	2 739	2 826	- 87	519
1917-18	3 006	2 919	+ 87	432
1918-19	3 164	3 289	- 125	557
1919-20	3 630	3 657	- 27	584
1929-30	5 379	5 430	- 51	1 451
1930-31	5 219	5 709	- 490	1 942
1931-32	4 771	5 314	- 543	2 485
1932-33	5 044	5 155	- 110	2 596
1933-34	5 396	5 492	- 95	2 691
1934-35	5 744	5 983	- 238	2 930
1935-36	6 235	6 495	- 259	3 189
1936-37	6 977	6 887	+ 90	3 099
1937-38	7 280	7 266	+ 14	3 086
1938-39	7 230	7 281	- 52	3 138
1939-40	6 111	6 106	+ 5	3 133
1940-41	5 843	6 206	- 363	3 496
1941-42	6 717	6 714	+ 3	3 493
1942-43	6 581	6 800	- 219	3 712
1943-44	6 997	6 937	+ 60	3 651
1944-45	7 313	7 351	- 38	3 690
1945-46	7 867	8 068	- 201	3 891
1946-47	9 014	9 147	-132	4 023
1947-48	10 156	10 204	- 48	4 071
1948-49	11 288	11 691	- 402	4 473
1949-50	13 882	14 165	- 283	4 756
1950-51	15 831	16 324	- 493	5 249
1951-52	20 386	21 490	- 1 104	6 353
1952-53	22 922	23 526	- 604	6 957
1953-54	26 502	26 840	- 338	7 294
1954-55	29 877	30 614	- 737	8 032
1955-56	34 389	35 792	- 1 403	9 434
1956-57	37 889	39 543	- 1 655	11 089
1957-58	43 210	43 228	- 18	11 107
1958-59	45 520	45 518	+ 2	11 105
1959-60	50 542	59 657	- 114	11 219
1960-61	54 054	54 167	- 113	11 332
1961-62	61 191	61 352	- 161	11 493
1962-63	64 018	64 019	- 1	11 493
1963-64	69 167	69 021	+ 147	11 346
1964-65	76 012	76 465	- 452	11 799
1965-66	84 453	85 585	- 1 132	12 931
1966-67	91 486	93 248	- 1 762	14 693
1967-68	100 463	102 413	- 1 951	16 644
1968-69	109 526	111 540	- 2 015	18 659
1969-70	120 619	121 004	- 385	19 044
1970-71	135 829	138 207	- 2 378	21 422
1971-72	156 432	160 237	- 3 805	25 226
1972-73	181 866	185 998	- 4 132	29 358
1973-74	206 947	210 097	- 3 150	32 508
1974-75	268 522	282 065	- 13 544	46 052
1975-76	322 091	317 947	+ 4 144	41 908
1976-77	396 617	395 033	+ 1 583	41 908
1977-78	444 263	450 706	- 6 443	48 351
1978-79	495 822	492 961	+ 2 861	45 490
1979-80	560 192	563 917	- 3 725	49 214
1980-81	620 307	627 441	- 7 133	56 348
1981-82	683 231	717 628	- 34 397	90 745
1982-83	764 990	772 735	- 7 745	98 490
1983-84	853 107	855 006	- 1 899	100 389
1984-85	953 209	952 922	+ 286	100 103
1985-86	1 204 697	1 036 954	-12 257	112 360

(*a*) From 1947-48 until 1971-72, the items 'Revenue' and 'Budget result' are shown adjusted according to the Special Grant Adjustment.
(*b*) System of annual Commonwealth Special Grants introduced.

(Chapter 6) Summary of Population at Census Dates, Tasmania *(a) (b)*

Particulars		*Census date*									
		April 1921	*June 1933*	*June 1947*	*June 1954*	*June 1961*	*June 1966*	*June 1971*	*June 1976*	*June 1981*	*June 1986*
Population —											
Males	no.	107 743	115 097	129 244	157 129	177 628	187 390	196 442	201 512	208 641	216 480
Females	no.	106 037	112 502	127 834	151 623	172 712	184 045	193 971	201 356	210 316	219 873
Persons	no.	213 780	227 599	257 078	308 752	350 340	371 435	390 413	402 868	418 957	436 353
Masculinity (males per 100 females)	no.	102	102	101	104	103	102	101	100	99	98
Average annual increase since previous Census —											
Males	%	1.0	0.6	0.8	2.8	1.8	1.1	1.0	0.5	0.7	0.8
Females	%	1.3	0.5	0.9	2.5	1.9	1.3	1.0	0.8	0.9	0.9
Persons	%	1.1	0.5	0.9	2.7	1.8	1.2	1.0	0.6	0.8	0.8
Age distribution of population —											
Under 16 years	no.	77 654	73 030	77 483	102 171	123 331	127 379	129 307	124 267	116 942	114 843
	%	36.3	32.1	30.1	33.1	35.2	34.3	33.1	30.8	28.0	26.3
16 years and under 65 years	no.	126 055	138 515	159 925	183 230	200 001	214 981	230 069	243 885	261 151	275 058
	%	59.0	60.9	62.2	59.3	57.1	57.9	58.9	60.5	62.3	63.0
65 years and over	no.	10 071	16 054	19 670	23 351	27 008	29 075	31 037	34 719	42 540	46 452
	%	4.7	7.0	7.7	7.6	7.7	7.8	7.9	8.6	9.9	10.6
Religions of the population —											
Church of England	no.	112 222	105 228	123 158	147 407	159 101	166 023	169 089	158 748	151 207	154 748
Methodist	no.	27 171	26 470	33 358	38 236	42 236	43 084	42 173	37 107	19 906	–
Catholic *(c)*	no.	35 465	33 189	39 844	53 042	63 993	71 089	77 250	75 092	78 143	80 479
Presbyterian	no.	14 796	13 194	12 644	15 607	16 757	17 498	17 281	14 899	11 575	12 084
Baptist	no.	5 332	4 666	5 374	6 293	7 227	7 759	8 039	7 940	7 965	8 092
Congregational	no.	4 543	3 963	4 007	4 425	4 193	4 530	4 134	3 266	1 790	1 241
Churches of Christ	no.	1 935	1 892	2 039	2 267	2 507	2 701	2 500	2 188	2 110	2 046
Protestant (undefined)	no.	2 271	1 979	1 661	2 157	1 975	1 924	4 243	3 455	5 217	3 034
Salvation Army	no.	1 357	1 142	1 612	1 815	2 316	2 661	3 176	2 880	3 202	3 437
Uniting Church *(d)*	no.	–	–	–	–	–	–	–	–	17 668	36 724
Other Christian	no.	3 597	3 530	4 518	8 238	11 229	13 058	16 510	18 667	18 631	22 907
Total Christian	no.	208 689	195 253	228 215	279 487	311 534	330 327	344 395	324 242	317 414	324 792
Non-Christian	no.	245	87	173	256	268	485	561	779	1 263	1 967
Indefinite	no.	520	373	797	796	1 766	2 275	993	2 223	11 162	2 292
No religion	no.	399	159	506	516	775	2 020	44 464	27 624	36 222	47 852
No reply	no.	3 927	31 727	27 387	27 697	35 997	36 328		47 998	52 896	59 363
Conjugal condition of the population —											
Never married —											
Under 15 years of age	no.	73 444	68 590	73 371	97 452	117 299	120 164	121 323	115 665	109 604	106 538
15 years of age and over	no.	54 297	61 009	53 912	54 890	58 039	64 365	65 213	70 229	80 067	87 728
Total never married	no.	127 741	129 599	127 283	152 342	175 338	184 529	186 536	185 894	189 671	194 266
Married	no.	76 482	86 014	114 625	139 801	157 110	167 421	181 855	185 056	189 442	196 070
Widowed	no.	8 874	10 954	12 933	14 030	15 563	16 959	18 621	19 340	21 362	22 241
Divorced	no.	118	416	1 319	2 002	2 329	2 526	3 401	5 868	10 855	15 214
Not stated	no.	565	616	918	577	*(e)*	*(e)*	*(e)*	*(e)*	*(e)*	*(e)*
Birthplaces of the population —											
Australia	no.	196 268	215 213	247 379	282 491	317 478	335 582	350 150	361 866	371 624	386 885
New Zealand	no.	1 356	1 201	1 030	1 112	1 128	1 237	1 550	1 801	2 421	2 763
United Kingdom and Republic of Ireland	no.	12 734	9 588	7 123	14 113	16 741	19 101	22 513	22 913	23 289	23 226
Netherlands	no.	9	11	13	2 340	3 556	3 367	3 183	2 916	3 008	2 973
Germany	no.	389	238	171	1 794	2 223	2 016	2 009	1 886	1 936	1 982
Italy	no.	37	92	64	974	1 536	1 448	1 485	1 423	1 343	1 259
Other European	no.	512	334	325	4 535	5 789	6 033	6 184	5 970	5 530	5 491
Other birthplace	no.	2 475	922	973	1 393	1 889	2 651	3 339	4 095	9 806	11 774

(a) Full-blood aboriginals excluded from census data prior to 1966.
(b) As recorded. Not adjusted for under-enumeration.
(c) Includes Catholic and Roman Catholic.
(d) The Uniting Church was formed in 1978 from members of the Congregational, Methodist and Presbyterian churches.
(e) Conjugal condition was allocated where this information was not stated.

(Chapter 6) **Population, Tasmania**

Year	Estimated population (a)						Annual rate of increase of population (c)
	Total at 30 June	Mean: year ended 30 June	Mean: year ended 31 Dec.	Totals at 31 December			
				Persons	Males	Females	Masculinity (b)
	no.	no.	no.	no.	no.	no.	per cent
1820	n.a.	n.a.	n.a.	5 400	n.a.	n.a.	n.a.	8.00
1825	n.a.	n.a.	n.a.	14 192	10 979	3 213	341.7	21.26
1830	n.a.	n.a.	n.a.	24 279	18 108	6 171	293.4	11.35
1835	n.a.	n.a.	n.a.	40 172	28 749	11 423	251.7	10.59
1840	n.a.	n.a.	n.a.	45 999	32 040	13 959	229.5	2.75
1845	n.a.	n.a.	n.a.	64 291	43 921	20 370	215.6	6.91
1850	n.a.	n.a.	n.a.	68 870	44 229	24 641	179.5	1.37
1855	n.a.	n.a.	n.a.	69 962	38 680	31 282	123.6	0.32
1860	n.a.	n.a.	88 752	89 821	49 653	40 168	123.6	5.12
1865	n.a.	n.a.	93 111	93 967	50 549	43 418	116.4	0.90
1870 (d)	n.a.	n.a.	100 038	100 886	53 517	47 369	113.0	1.44
1875	n.a.	n.a.	104 000	103 739	54 678	49 061	111.4	0.55
1880	n.a.	n.a.	113 648	114 790	60 568	54 222	111.7	2.02
1885	n.a.	n.a.	127 763	128 860	67 712	61 148	110.7	2.33
1890	n.a.	n.a.	143 224	144 787	76 453	68 334	111.9	2.38
1895	n.a.	n.a.	153 701	154 895	80 485	74 410	108.2	1.35
1900	n.a.	n.a.	172 631	172 900	89 763	83 137	108.0	2.21
1905	183 351	183 834	184 478	186 385	95 947	90 438	106.1	1.52
1910	189 807	190 792	191 005	193 803	98 866	94 937	104.1	0.79
1915	195 370	196 320	196 238	197 536	98 653	98 883	99.8	0.38
1920	209 425	208 599	210 350	212 752	107 259	105 493	101.7	1.37
1925	213 991	215 997	215 552	219 364	110 172	109 192	100.9	0.70
1930	219 983	219 269	220 933	225 297	113 505	111 792	101.5	0.48
1935	228 988	229 339	229 867	233 423	118 124	115 299	102.5	0.63
1940	240 191	240 023	241 134	244 002	123 650	120 352	102.7	0.31
1945	248 633	246 971	248 596	250 280	125 854	124 426	101.1	1.37
1946	251 998	250 309	252 192	254 570	128 007	126 563	101.1	1.71
1947 (d)	257 078	254 553	257 636	267 936	135 195	132 741	101.8	5.25
1948	261 206	261 202	263 445	273 401	138 843	134 558	103.2	2.04
1949	267 062	266 518	270 327	281 343	143 433	137 910	104.0	2.91
1950	275 902	274 493	278 785	290 333	147 103	143 230	102.7	3.20
1951	286 193	283 526	288 294	301 787	153 721	148 066	103.8	3.95
1952	296 299	293 340	298 361	309 558	157 702	151 856	103.8	2.57
1953	304 080	302 529	306 318	316 465	161 305	155 160	104.0	2.23
1954 (d)	308 752	309 416	311 055	319 218	162 393	156 825	103.6	0.87
1955	314 092	312 694	315 565	324 919	165 356	159 563	103.6	1.79
1956	318 470	318 309	321 039	331 340	168 695	162 645	103.7	1.98
1957	326 130	324 666	328 435	338 807	172 186	166 621	103.8	2.25
1958	333 066	332 046	335 382	343 898	174 465	169 433	103.0	1.50
1959	339 376	338 628	341 423	351 349	178 109	173 240	102.8	2.17
1960	343 910	344 111	346 913	355 969	180 511	175 458	102.9	1.31
1961 (d)	350 340	350 077	353 623	353 258	178 864	174 394	102.6	0.76
1962	355 668	353 175	355 682	358 087	181 085	177 002	102.3	1.37
1963	360 727	358 180	360 590	362 799	183 330	179 469	102.2	1.32
1964	364 311	362 758	364 554	366 508	185 051	181 457	102.0	1.02
1965	367 905	366 366	367 970	369 608	186 483	183 125	101.8	0.85
1966 (d)	371 436	369 600	371 483	373 309	188 180	185 129	101.6	1.00
1967	375 244	373 321	375 397	377 841	190 369	187 472	101.5	1.21
1968	379 649	377 582	379 916	383 055	192 871	190 184	101.4	1.38
1969	384 893	382 710	385 079	386 998	194 788	192 210	101.3	1.03
1970	387 720	386 665	388 180	390 253	196 363	193 890	101.3	0.84
1971 (d)	398 100	(e) n.a.	(e) n.a.	399 500	200 600	198 900	100.4	(e) n.a.
1972	400 300	399 400	400 500	401 900	201 600	200 300	100.6	0.60
1973	403 100	401 800	403 200	404 600	202 800	201 800	100.5	0.67
1974	406 200	404 600	406 300	408 800	204 600	204 200	100.2	1.04
1975	410 100	408 300	410 000	411 500	205 900	205 600	100.1	0.66
1976 (d)	412 300	411 300	412 400	413 700	206 900	206 800	100.0	0.53
1977	415 000	413 700	415 100	416 500	208 300	208 300	100.0	0.68
1978	417 600	416 500	417 800	419 100	209 600	209 600	100.0	0.62
1979	420 800	419 200	420 700	422 200	210 700	211 600	99.6	0.74
1980	423 600	422 200	423 600	425 200	211 600	213 600	99.1	0.71
1981 (d)	r 427 200	425 300	427 100	428 300	212 900	215 300	98.9	0.73
1982	r 429 800	428 600	429 800	431 000	214 200	216 800	98.8	0.63
1983	r 432 800	431 000	432 800	435 100	216 100	219 000	98.7	0.95
1984	r 437 800	435 100	437 600	440 100	218 400	221 700	98.5	1.15
1985	r 442 800	440 100	442 500	444 600	220 700	223 900	98.6	1.02
1986 (d)	446 500	444 600	446 400	447 700	222 200	225 400	98.6	0.70
1987	447 900	447 400	447 700	447 800	222 200	225 600	98.5	0.02

(a) Prior to 1966 excludes Aboriginals.
(b) Number of males per 100 females.
(c) The rate of increase during the previous 12 months or, in the years prior to 1936, the average (compound) rate of increase during the previous five years.
(d) Census year.
(e) Not available due to change in series.

(Chapter 6) Births, Deaths, Marriages and Divorces, Tasmania

Year	Number				Rate per 1 000 of mean population			Deaths under one year of age	
	Births	Deaths	Marriages	Divorces	Births	Deaths	Marriages	Number	Rate per 1 000 live births
1830	460	270	163	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1840	404	501	457	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1845	1 506	697	658	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1850	2025	1070	923	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1855	2948	1692	1257	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1860	3238	1749	689	n.a.	36.48	19.71	7.76	n.a.	n.a.
1865	3069	1263	591	n.a.	32.96	13.56	6.35	n.a.	n.a.
1870	3054	1404	670	n.a.	30.53	14.03	6.70	298	97.6
1875	3105	2079	689	n.a.	29.86	19.99	6.83	407	131.1
1880	3739	1832	840	n.a.	32.90	16.12	7.39	420	112.3
1885	4637	2036	1054	n.a.	36.29	15.94	8.25	522	112.6
1890	4813	2118	954	n.a.	33.60	14.79	6.66	508	105.6
1895	4790	1811	846	5	31.16	11.78	5.50	391	81.6
1900	4864	1903	1332	4	28.18	11.02	7.72	389	80.0
1905	5257	1844	1365	2	28.50	10.00	7.40	424	80.7
1910	5586	2120	1493	6	29.25	11.10	7.82	568	101.7
1915	5845	2015	1600	7	29.79	10.27	8.15	423	72.4
1920	5740	2036	1999	18	27.29	9.68	9.50	376	65.5
1925	5218	1996	1504	37	24.21	9.26	6.98	288	55.2
1930	4786	1948	1450	42	21.66	8.82	6.56	242	50.6
1935	4456	2353	1875	87	19.39	10.24	8.16	231	51.8
1936	4581	2387	2073	62	19.79	10.31	8.96	227	49.6
1937	4841	2225	2042	30	20.65	9.49	8.71	202	41.7
1938	4907	2288	2082	109	20.76	9.68	8.81	195	39.7
1939	5004	2426	2264	80	20.95	10.16	9.48	203	40.6
1940	4994	2387	2476	83	20.71	9.90	10.27	176	35.2
1941	5206	2575	2150	84	21.66	10.71	8.94	255	49.0
1942	5305	2430	2431	83	22.00	10.08	10.08	255	42.4
1943	5597	2527	2102	89	23.05	10.41	8.66	227	40.6
1944	5200	2494	1935	115	21.17	10.15	7.88	199	38.3
1945	5785	2413	1868	172	23.27	9.71	7.51	159	27.5
1946	6847	2549	2650	219	27.15	10.11	10.51	207	30.2
1947	7140	2363	2584	210	27.71	9.17	10.03	195	27.3
1948	6979	2528	2428	185	26.49	9.60	9.22	193	27.7
1949	7110	2389	2422	266	26.30	8.84	8.96	170	23.9
1950	7242	2466	2560	152	25.96	8.85	9.18	172	23.8
1951	7357	2567	2607	194	25.52	8.93	9.04	196	26.6
1952	7916	2579	2553	217	26.53	8.64	8.56	172	21.7
1953	7736	2551	2424	210	25.25	8.33	7.91	177	22.9
1954	7770	2696	2512	238	24.98	8.67	8.08	186	23.9
1955	8089	2489	2600	233	25.63	7.89	8.24	189	23.4
1956	8104	2513	2601	197	25.24	7.83	8.10	170	21.0
1957	8435	2670	2507	180	25.68	8.13	7.63	170	20.2
1958	8568	2708	2475	176	25.55	8.07	7.38	167	19.5
1959	8625	2780	2567	222	25.26	8.14	7.52	202	23.4
1960	8853	2670	2713	210	25.52	7.70	7.82	169	19.1
1961	8892	2789	2677	286	25.40	7.89	7.57	151	16.8
1962	8894	2870	2485	249	25.01	8.07	6.99	184	20.7
1963	8530	2818	2579	261	23.66	7.82	7.15	153	17.9
1964	8252	3174	2869	230	22.64	8.71	7.87	166	20.1
1965	7535	3043	2888	280	20.48	8.27	7.85	125	16.6
1966	7401	3159	2946	319	19.92	8.50	7.93	108	14.6
1967	7547	3228	3213	248	20.10	8.60	8.56	130	17.2
1968	8317	3284	3426	303	21.89	8.64	9.02	143	17.2
1969	8445	3309	3532	331	21.93	8.59	9.17	139	16.5
1970	8185	3174	3535	426	21.09	8.16	9.11	116	14.2
1971	8321	3295	3578	432	21.32	8.44	9.17	114	13.7
1972	7824	3227	3426	446	19.94	8.22	8.73	127	16.2
1973	7326	3347	3395	444	18.51	8.46	8.58	137	18.7
1974	7398	3484	3567	536	18.52	8.72	8.93	123	16.6
1975	6982	3339	3242	591	17.26	8.26	8.02	128	18.3
1976	6702	3389	3477	1761	16.44	8.32	8.53	77	11.5
1977	6735	3269	3166	1134	16.40	7.96	7.71	99	14.7
1978	6788	3271	3148	1132	16.41	8.00	7.61	97	14.3
1979	6757	3167	3245	1167	16.17	7.58	7.79	95	14.1
1980	6735	3392	3433	1285	15.90	7.80	8.20	79	11.7
1981	7188	3320	3515	1139	16.83	7.77	8.23	86	12.0
1982	7002	3432	3576	1391	16.29	7.99	8.32	55	7.9
1983	7028	3311	3644	1359	16.24	7.65	8.42	74	10.5
1984	7098	3549	3704	1185	16.22	8.11	8.46	81	11.4
1985	7213	3659	3520	1169	16.30	8.27	7.95	87	12.1
1986	6911	3435	3302	1245	15.48	7.69	7.40	74	10.7

(Chapter 7) Employment: Unemployment: Wage Rates and Earnings, Tasmania

Year	Employed persons, labour force survey (a)	Unemployment: Labour force survey (a)	Unemployment: Persons receiving unemployment benefits (b)	Prescribed weekly wage rates, adult males, Hobart at 31 December: Basic wage (c)	Prescribed weekly wage rates, adult males, Hobart at 31 December: Minimum wage (d)	Average weekly earnings, all male employees for June qtr.: Amount (e)	Average weekly earnings, all male employees for June qtr.: Increase (f)
	('000)	('000)	no.	$	$	$	per cent
1940			..	8.10	..	n.a.	n.a.
1941			..	8.50	..	n.a.	n.a.
1942			..	9.20	..	9.60	n.a.
1943			..	9.50	..	10.40	8.3
1944			..	9.40	..	10.60	1.9
1945			..	9.40	..	10.50	-1.0
1946			83	10.30	..	10.80	2.9
1947			44	10.70	..	12.00	11.1
1948			28	11.80	..	14.00	16.7
1949			32	12.80	..	15.60	11.4
1950			32	16.00	..	18.00	15.4
1951			10	19.90	..	22.10	22.8
1952	n.a.	n.a.	104	23.00	..	27.10	22.6
1953			323	24.20	..	28.80	6.3
1954			109	24.20	..	30.60	6.3
1955			52	24.20	..	33.60	9.8
1956			71	25.20	..	35.30	5.1
1957			410	26.20	..	36.60	3.7
1958			639	26.70	..	37.50	2.5
1959			670	28.20	..	37.60	0.3
1960			522	28.20	..	41.50	10.4
1961			1 416	29.40	..	41.70	0.5
1962			1 778	29.40	..	44.60	7.0
1963			1 777	29.40	..	45.10	1.1
1964			1 399	31.40	..	46.50	3.1
1965			946	31.40	..	49.20	5.8
1966	144.0	2.8	457	33.40	..	51.50	4.7
1967	148.3	3.0	546	34.40	38.15	55.80	8.3
1968	155.1	2.2	635	35.75	40.45	58.50	4.8
1969	153.7	3.3	600	36.80	43.00	63.10	7.9
1970	155.9	3.3	437	36.80	43.00	68.40	8.4
1971	157.4	2.9	873	39.00	47.00	76.70	12.1
1972	157.1	3.8	1 697	41.00	51.70	83.20	8.5
1973	161.6	3.0	2 330	43.50	60.70	93.60	12.5
1974	165.9	3.9	1 769	46.00	68.70	109.60	17.1
1975	165.0	7.4	4 439	50.00	83.50	138.50	26.4
1976	164.2	8.1	7 228	62.90	102.30	155.10	12.0
1977	168.7	9.9	7 078	72.40	114.00	175.10	12.9
1978	163.9	11.0	9 757	77.50	121.90	190.10	8.6
1979	172.9	7.9	10 420	(g) 80.00	(g) 125.80	204.20	7.4
1980	171.7	9.8	11 121	87.10	137.00	234.70	14.9
1981	174.6	11.4	12 929	93.60	147.20	261.60	11.5
1982	167.0	16.5	16 263	93.60	168.00	312.00	19.3
1983	167.6	19.0	20 355	97.60	175.20	337.10	8.0
1984	169.0	19.7	19 150	101.60	182.40	371.40	10.2
1985	179.5	18.9	18 870	108.20	194.20	390.20	5.1
1986	183.9	15.9	18 702	110.40	198.10	417.10	6.9
1987	184.9	20.2	18 880	120.40	208.10	438.20	5.1

(*a*) At August each year to 1977, at June each year from 1978.
(*b*) Persons on benefit on last Saturday of June. Unemployment Benefit was first paid in July, 1945. (*Source:* Department of Social Security.)
(*c*) The rates shown up to and including 1966 are those in Commonwealth awards. State Wages Boards awards are shown from 1967. The Commonwealth and State rates prior to 1967 were identical except between 1956 and 1959 when the State's rates were slightly higher.
(*d*) The Tasmanian Wages Boards introduced the concept of the minimum wage in June 1967.
(*e*) Based on the survey of average weekly earnings introduced in September quarter 1981. Amounts for June 1981 and earlier periods are estimated by linking the various pay-roll tax series with the new series at September quarter 1981.
(*f*) Over June quarter of previous year.
(*g*) Tasmanian decision of 13 July 1979 following National Wage Case decision of 27 June 1979.

(Chapter 8) Passenger Arrivals and Departures, Tasmania (*a*)

Year	Arrivals	Departures	Year	Arrivals	Departures	Year	Arrivals	Departures
	no.	no.		no.	no.		no.	no.
1860	3 432	2 782	1950	127 709	122 333	1970	320 867	323 449
1865	3 597	3 691	1951	137 341	129 514	1971	340 163	340 642
1870	5 982	5 936	1952	130 583	126 979	1972	356 561	355 224
1875	6 535	8 083	1953	127 484	125 812	1973	450 707	448 556
1880	10 411	10 034	1954	126 976	128 424	1974	508 449	502 488
1885	14 822	15 228	1955	137 834	137 144	1975	510 639	514 278
1890	29 517	29 086	1956	143 104	141 686	1976	509 356	507 384
1895	18 767	19 357	1957	143 601	141 310	1977	538 665	530 535
1900	23 056	25 479	1958	141 814	141 995	1978	557 275	559 293
			1959	162 761	160 569	1979	576 050	574 790
1905	31 116	33 311						
1910	35 377	38 159	1960	182 537	183 513	1980	591 152	*r* 591 941
1915	39 767	44 764	1961	186 423	184 165	1981	591 699	593 780
1920	34 829	35 648	1962	185 268	186 023	1982	583 770	*r* 588 519
1925	40 227	43 757	1963	198 443	199 918	1983	563 666	563 554
1930	40 291	41 110	1964	219 930	223 380	1984	*r* 580 350	578 061
1935	42 470	42 912	1965	248 964	249 617	1985	*r* 627 577	*r* 631 514
1940	(*b*) 51 672	(*b*) 53 644	1966	257 463	256 068	1986	629 617	628 245
1945	n.a.	n.a.	1967	270 934	271 812	1987	624 306	626 297
1946	(*b*) 24	(*b*) 159	1968	276 798	276 856			
1947	(*b*) 49 920	(*b*) 40 833	1969	296 186	297 069			
1948	112 666	110 490						
1949	117 614	113 232						

(*a*) Series of recorded interstate arrivals and departures prepared by State Department of Tourism replaces ABS series from 1972.
(*b*) Excludes troop movements.

(Chapter 8) Passenger Arrivals and Departures, Tasmania

Period	Arrivals				Total departures	Cruise ships	
	By air		By sea	Total		Arrivals	Departures
	Interstate	New Zealand					
1981	520 601	9 762	61 336	591 699	593 780	n.a.	n.a.
1982	516 140	6 863	60 767	583 770	588 519	n.a.	n.a.
1983	493 075	7 004	63 587	563 666	563 554	n.a.	n.a.
1984	512 257	7 054	61 039	580 350	578 061	n.a.	n.a.
1985	550 045	8 419	69 113	627 577	631 514	n.a.	n.a.
1986	524 342	10 136	95 139	629 617	628 245	n.a.	n.a.
1987	526 517	9 446	88 343	624 306	626 297	7 398	6 745

Source: Department of Tourism

(Chapter 8) Religions of the Population at Census Dates, Tasmania (*a*) (*b*)

Particulars		Census date									
		April 1921	*June 1933*	*June 1947*	*June 1954*	*June 1961*	*June 1966*	*June 1971*	*June 1976*	*June 1981*	*June 1986*
Church of England	no.	112 222	105 228	123 158	147 407	159 101	166 023	169 089	158 748	151 207	154 748
Methodist	no.	27 171	26 470	33 358	38 236	42 236	43 084	42 173	37 107	19 906	–
Catholic (*c*)	no.	35 465	33 189	39 844	53 042	63 993	71 089	77 250	75 092	78 143	80 479
Presbyterian	no.	14 796	13 194	12 644	15 607	16 757	17 498	17 281	14 899	11 575	12 084
Baptist	no.	5 332	4 666	5 374	6 293	7 227	7 759	8 039	7 940	7 965	8 092
Congregational	no.	4 543	3 963	4 007	4 425	4 193	4 530	4 134	3 266	1 790	1 241
Churches of Christ	no.	1 935	1 892	2 039	2 267	2 507	2 701	2 500	2 188	2 110	2 046
Protestant (undefined)	no.	2 271	1 979	1 661	2 157	1 975	1 924	4 243	3 455	5 217	3 034
Salvation Army	no.	1 357	1 142	1 612	1 815	2 316	2 661	3 176	2 880	3 202	3 437
Uniting Church (*d*)	no.	–	–	–	–	–	–	–	–	17 668	36 724
Other Christian	no.	3 597	3 530	4 518	8 238	11 229	13 058	16 510	18 667	18 631	22 907
Total Christian	no.	208 689	195 253	228 215	279 487	311 534	330 327	344 395	324 242	317 414	324 792
Non-Christian	no.	245	87	173	256	268	485	561	779	1 263	1 967
Indefinite	no.	520	373	797	796	1 766	2 275	993	2 223	11 162	2 292
No religion	no.	399	159	506	516	775	2 020	44 464	27 624	36 222	47 852
No reply	no.	3 927	31 727	27 387	27 697	35 997	36 328		47 998	52 896	59 363

(*a*) Full-blood aboriginals excluded from census data prior to 1966.
(*b*) As recorded. Not adjusted for under-enumeration.
(*c*) Includes Catholic and Roman Catholic.
(*d*) The Uniting Church was formed in 1978 from members of the Congregational, Methodist and Presbyterian churches.

(Chapter 9) Education: Post Secondary and Tertiary, Tasmania

Year	Tasmanian State Institute of Technology			University		
	Teaching staff full-time	Students		Teaching staff full-time	Students	
		full-time	part-time		full-time	part-time
1900	..	..	..	9	51	
1905	..	..	..	9	67	
1910	..	..	..	10	147	
1915	..	..	..	17	258	
1920	..	..	..	23	179	
1925	..	..	..	28	173	
1930	..	..	..	29	449	
1935	..	..	..	36	229	
1940	..	..	..	47	452	
1945	..	..	..	43	503	
1950	..	..	..	64	673	
1955	..	..	..	78	800	
1960	..	..	..	108	1 395	
1965	n.a.	n.a.	n.a.	145	2 300	
1970	53	238	896	202	2 260	864
1975	203	1 748	687	280	2 314	1 085
1976	206	1 824	818	293	2 468	1 068
1977	201	1 836	750	298	2 685	840
1978	210	1 855	941	309	2 514	1 003
1979	204	1 893	934	301	2 377	1 058
1980	196	1 806	1 120	301	2 344	1 173
1981	123	957	1 125	373	3 189	1 893
1982	129	929	1 251	372	3 078	2 132
1983	141	1 042	1 492	359	3 101	2 128
1984	146	1 124	1 575	359	3 243	2 145
1985	141	1 144	1 468	376	3 397	2 050
1986	144	1 278	1 540	367	3 479	2 289
1987	147	1 487	1 274	363	3 457	1 786

(Chapter 9) Education: Primary and Secondary, Tasmania

Year	Government schools			Non-government schools		
	Number of schools	Teaching staff	Students (a)	Number of schools	Teaching staff	Students (b)
1900	309	(c) 612	24 157	224	n.a.	9749
1905	343	600	24 043	167	n.a.	8 323
1910	367	677	30 805	124	420	6 278
1915	457	968	35 812	92	322	5 944
1920	470	1 102	39 360	84	317	5 872
1925	515	1 315	39 910	75	312	6 103
1930	508	1 358	40 032	66	326	5 862
1935	516	1 282	39 332	65	324	5 794
1940	431	1 398	37 369	63	329	6 139
1945	356	1 511	35 925	59	321	6 987
1950	332	1 687	46 394	58	375	8 330
1955	291	2 277	60 779	57	424	10 454
1960	287	2 540	65 049	60	544	12 716
1965	296	(d) 3 243	71 615	64	666	14 688
1970	283	3 756	79 385	68	810	14 623
1975 (e) (f)	247	4 247	74 332	58	717	13 838
1976 (e)	250	4 241	74 533	61	720	13 825
1977 (e) (g)	250	4 360	74 235	62	729	13 938
1978 (e)	253	4 584	73 676	61	757	14 251
1979 (e)	252	4 752	73 016	60	792	14 401
1980	256	4 908	72 283	59	831	14 620
1981 (g)	258	4 948	70 486	61	854	14 917
1982	259	4 901	69 142	70	904	15 326
1983	257	5 025	68 387	70	976	15 940
1984	257	5 145	67 787	71	1 030	16 464
1985	256	5 011	66 863	70	1 069	17 050
1986	255	4 985	66 050	69	1 115	17 459
1987 p	261	4 732	65 401	66	1 130	17 602

(a) Aggregate enrolment for whole year prior to 1960. From 1960 as at 1 August and excluding adult correspondence students.
(b) Aggregate enrolment for whole year to 1919. From 1920 to 1961 enrolment as at 31 December and thereafter at 1 August.
(c) Includes teachers, pupil-teachers and paid monitors; excludes training college staff, junior monitors, subsidised teachers, etc.
(d) Includes part-time teachers but excludes teachers at special schools from 1962.
(e) Full-time plus full-time equivalent of part-time teachers.
(f) From 1974 figures exclude kindergartens.
(g) From 1977 Government school figures are shown using National Schools Collection definitions.

(Chapter 11) Commonwealth Pensions: Tasmania

Year	Age and invalid pensions						Disability pensions (a)		Widows' pensions	
	Number of pensioners		Expenditure on pensions		Weekly rate (b)	Operative from	Number in force	Amount paid	Number in force	Amount paid
	Age	Invalid	Age	Invalid						
	no.	no.	$'000	$'000	$	date	no.	$'000	no.	$'000
1909–10	3 245	–	159	–	1.00	1.7.1909	–	–	–	–
1914–15	4 528	1 349	223	68	1.00	..	–	–	–	–
1919–20	4 806	1 947	364	145	1.50	13.9.1923	9 551	524	–	–
1924–25	5 856	2 036	503	180	1.75	8.10.1925	10 770	590	–	–
1929–30	7 678	2 456	753	248	2.00	23.7.1931	12 321	695	–	–
1934–35	8 495	2 975	737	263	1.75	26.12.1940	12 523	724	–	–
1939–40	10 614	2 552	1 055	256	2.10	19.8.1943	11 729	808	-	-
1944–45	9 512	2 699	1 271	368	2.70	21.10.1948	12 081	1 103	1 564	207
1949–50	11 402	3 158	2 359	670	4.25	2.11.1950	19 168	2 036	1 384	314
1950–51	11 548	2 885	2 819	724	5.00	1.11.1951	21 407	2 595	1 366	323
1951–52	11 716	2 762	3 457	831	6.00	2.10.1952	22 863	3 121	1 358	376
1952–53	12 380	2 602	4 107	879	6.75	29.10.1953	23 966	3 429	1 380	441
1953–54	12 906	2 605	4 358	908	7.00	..	24 935	3 641	1 371	461
1954–55	13 679	2 681	4 795	967	7.00	27.10.1955	25 731	3 934	1 409	475
1955–56	14 074	2 596	5 605	1 063	8.00	..	26 483	4 035	1 419	537
1956–57	14 847	2 812	5 887	1 183	8.00	24.10.1957	26 751	4 054	1 476	607
1957–58	15 114	2 883	6 527	1 315	8.75	..	27 238	4 424	1 581	677
1958–59	15 434	3 070	6 660	1 419	8.75	8.10.1959	27 621	4 458	1 663	741
1959–60	15 835	3 206	7 471	1 605	9.50	..	28 048	4 832	1 773	833
1960–61	16 552	3 338	(c) 10 101		10.00	6.10.1960	28 305	5 166	1 849	940
1961–62	17 522	3 299	11 404		10.50	5.10.1961	28 398	4 988	1 912	1 037
1962–63	17 760	3 343	11 717		10.50	..	28 214	5 668	1 977	1 084
1963–64	18 303	3 363	12 343		11.50	14.11.1963	27 913	6 158	2 109	1 467
1964–65	18 892	3 532	13 184		12.00	1.10.1964	27 109	6 214	2 248	1 699
1965–66	19 181	3 444	13 439		12.00	..	26 446	6 919	2 327	1 791
1966–67	19 590	3 530	14 574		13.00	13.10.1966	25 629	6 645	2 432	1 988
1967–68	20 411	3 548	15 414		13.00	..	25 015	6 790	2 588	2 125
1968–69	21 029	3 819	16 768		14.00	10.10.1968	24 485	7 622	2 678	2 465
1969–70	23 915	4 051	19 517		15.00	9.10.1969	23 807	7 835	2 958	2 927
1970–71	24 894	4 316	21 835		15.50	8.10.1970		8 230	3 138	3 327
					16.00	8.4.1971	23 254			
1971–72	25 668	4 498	25 543		17.25	7.10.1971		9 094	3 205	3 842
					18.25	4.5.1972	22 512			
1972–73	29 107	4 855	33 656		20.00	Aug. 1972		9 857	3 600	5 136
					21.50	Mar. 1973	21 905			
1973–74	31 904	5 087	43 032		23.00	Aug. 1973		11 176	3 932	6 582
					26.00	Apr. 1974	21 987			
1974–75	34 269	5 460	60 118		31.00	Aug. 1974		13 697	4 103	8 521
					36.00	Apr. 1975	21 474			
1975–76	35 594	6 091	77 976		38.75	Aug. 1975		14 827	4 209	11 221
					41.25	Apr. 1976	20 778			
1976–77	36 954	6 612	91 788		43.50	Aug. 1976		16 637	4 572	12 455
					47.10	Apr. 1977	20 062			
1977–78	38 204	6 205	107 203		49.30	Nov. 1977		18 676	5 001	14 660
					51.45	May 1978	18 844			
1978–79	38 885	6 427	117 678		53.20	Nov. 1978	18 127	18 696	5 229	16 621
1979–80	39 566	6 376	127 382		57.90	Nov. 1979	17 502	19 389	5 358	18 884
1980–81	40 000	6 487	142 519		61.05	May 1980	16 944	21 918	5 230	21 003
1981–82	40 413	6 615	163 130		74.15	May 1982	16 681	22 965	5 153	23 160
1982–83	40 838	6 767	176 095		85.90	Nov. 1982	16 805	28 887	5 144	24 187
1983–84	39 970	7 266	194 587		91.90	Nov. 1984	16 783	33 968	5 009	25 885
1984–85	39 162	7 614	209 200		94.30	May 1985	16 743	38 882	4 979	27 699
1985–86	38 627	7 835	219 505		102.10	May 1986	16 774	31 855	4 897	28 992
1986–87	38 106	8 285	234 207		112.15	June 1987	15 337	31 844	4 723	29 762

(*a*) Previously "war pensions"; excludes pensions in respect of the Boer War which are paid by the United Kingdom.
(*b*) Maximum single rate payable; subject to means test.
(*c*) Separate figures for age and invalid pensions not available from 1960–61.

(Chapter 11) Commonwealth Social Service Benefits Paid in Tasmania

Year	Family allowances, total amount paid (a)	Maternity allowance		Unemployment benefit		Sickness benefit		Special benefit (b)	
		Claims admitted	Amount paid	Claims admitted	Amount paid	Claims admitted	Amount paid	Claims admitted	Amount paid
	$'000	no.	$'000	no.	$'000	no.	$'000	no.	$'000
1912–13		3611	n.a.	–	–	–	–	–	–
1944–45	1057	5582	n.a.	–	–	–	–	–	–
1949–50	2483	7408	n.a.	151	4	2840	74	126	8
1954–55	(c) 4065	7940	255	471	(d) 32	1943	(d) 103	106	24
1959–60	4719	8985	285	3186	242	1883	135	130	39
1964–65	6306	7821	251	5255	583	2238	201	122	52
1965–66	6318	7578	243	2742	275	2040	174	122	57
1966–67	6912	7606	243	3166	228	2147	190	160	47
1967–68	6612	7939	254	3746	264	1952	165	99	42
1968–69	6710	8373	267	3984	297	2070	166	403	55
1969–70	7416	8130	259	3825	360	2194	199	429	68
1970–71	6686	8594	274	4388	366	2687	327	388	71
1971–72	7196	8211	260	8974	966	2964	497	418	79
1972–73	8185	7615	241	12536	2095	3295	792	459	128
1973–74	7212	7296	230	11642	3125	3975	1247	574	224
1974–75	6610	7225	229	22088	7746	4144	1692	800	443
1975–76	7766	7210	215	30930	15256	5018	2409	1760	811
1976–77	31197	6729	215	23981	17963	4662	2380	1827	979
1977–78	30968	6836	213	27337	23398	4284	2385	1792	804
1978–79 (e)	28924	n.a.	91	26294	28609	3881	2024	2071	1299
1979–80	30549	–	–	26316	29665	3554	2299	2051	1487
1980–81	27765	–	–	28234	34658	3626	2901	3463	2372
1981–82	122793	–	–	32147	49233	3707	3595	3999	2956
1982–83	39146	–	–	31686	78302	3750	4618	3652	3428
1983–84	42820	–	–	27308	90126	3555	5221	3858	3714
1984–85	42799	–	–	25719	96926	3411	5459	3565	3425
1985–86	43873	–	–	24362	99558	3332	6411	3173	3335
1986–87	39463	–	–	24276	109459	2552	7497	2822	3946

(a) Known as 'child endowment' up to 1975–76; replaced by increased 'family allowances' from 1 July 1976 in conjunction with abolition of tax rebates in respect of dependent children.
(b) Includes payments to migrants.
(c) Endowment extended to first child from 20 June 1950.
(d) Rates payable were doubled from 22 September 1952.
(e) Maternity allowance ceased 1 November 1978.

(Chapter 12)

Land Settlement: Land Utilisation, Tasmania ('000 ha)

Year (a)	Land settlement (b)				Year (a)	Land utilisation on rural establishments			
	Land		Crown land			Area under			
	Alienated	In process of alienation	Leased or licensed (c)	Other		Crops (d)	Sown grasses (d)	Balance of area	Total area of rural estab.
1860	1 242				1860–61	62			
1870	1 540		(e)	(e)	1870–71	64	(e)	(e)	(e)
1880	1 713				1880–81	57			
1890	1 900		293	4 640	1890–91	64	81		
1900	1 957		513	4 364	1900–01	91	124	1 782	1 996
1910	1 996	447	591	3 799	1910–11	116	200	1 862	2 178
1920	2 121	390	920	3 402	1920–21	120	267	2 216	2 603
1930	2 315	219	1 122	3 177	1930–31	108	305	2 241	2 654
1940	2 392	171	1 098	3 172	1940–41	103	313	2 282	2 698
1941	2 400	169	1 129	3 135	1941–42	114	318	2 316	2 748
1942	2 411	163	1 113	3 146	1942–43	121	n.a.	n.a.	2 641
1943	2 418	162	1 140	3 113	1943–44	136	164	2 287	2 587
1944	2 427	168	1 134	3 104	1944–45	139	165	2 331	2 635
1945	2 439	165	1 123	3 107	1945–46	132	234	2 256	2 622
1946	2 448	161	1 110	3 115	1946–47	123	230	2 237	2 590
1947	2 460	157	1 100	3 116	1947–48	112	223	2 167	2 502
1948	2 473	153	1 087	3 121	1948–49	112	268	2 098	2 478
1950	2 486	148	1 134	3 065	1949–50	118	308	2 169	2 594
1951	2 496	145	1 080	3 112	1950–51	122	322	2 176	2 621
1952	2 514	142	1 108	3 069	1951–52	124	237	2 155	2 605
1953	2 525	139	1 111	3 058	1952–53	130	326	2 198	2 654
1954	2 534	137	1 055	3 107	1953–54	142	336	2 156	2 635
1955	2 516	134	1 018	3 136	1954–55	132	363	2 177	2 672
1956	2 554	126	1 010	3 143	1955–56	137	400	2 145	2 682
1957	2 561	127	655	3 490	1956–57	122	424	2 088	2 634
1958	2 568	84	623	3 558	1957–58	122	458	2 070	2 649
1959	2 575	81	615	3 562	1958–59	144	461	2 055	2 660
1960	2 584	77	618	3 554	1959–60	135	491	2 009	2 635
1961	2 591	86	626	3 531	1960–61	153	487	1 995	2 635
1962	2 597	80	606	3 551	1961–62	155	508	1 988	2 651
1963	2 602	80	586	3 565	1962–63	165	515	1 919	2 599
1964	2 670	89	628	3 446	1963–64	158	552	1 871	2 581
1965	2 679	83	595	3 476	1964–65	167	576	1 855	2 598
1966	2 677	84	540	3 531	1965–66	158	622	1 849	2 629
1967	2 692	100	535	3 506	1966–67	181	628	1 825	2 633
1968	2 692	93	478	3 571	1967–68	170	680	1 813	2 663
1969	2 693	96	465	3 579	1968–69	193	618	1 776	2 667
1970	2 697	100	442	3 594	1969–70	169	737	1 732	2 637
1971	2 702	99	381	3 651	1970–71	172	747	1 712	2 631
1972	2 697	100	274	3 760	1971–72	147	772	1 688	2 607
1973	2 729	133	248	3 723	1972–73 (f)	80	856	1 656	2 592
1974	2 731	135	236	3 728	1973–74	74	920	1 567	2 561
1975	2 755	159	223	3 693	1974–75	67	921	1 504	2 492
1976	2 751	154	229	3 696	1975–76 (g)	60	935	1 464	2 459
1977	2 743	146	163	3 778	1976–77 (g)	65	904	1 340	2 308
1978	2 517	120	165	4 028	1977–78	70	910	1 302	2 281
1979	2 494	96	148	4 092	1978–79	80	904	1 247	2 232
1980	2 487	90	n.a.	n.a.	1979–80	78	895	1 256	2 229
1981	2 486	90	n.a.	n.a.	1980–81	84	903	1 234	2 220
1982	2 590	–	4 235		1981–82	90	910	1 168	2 168
1983	n.a.	n.a.	n.a.	n.a.	1982–83	98	903	1 167	2 168
1984	n.a.	n.a.	n.a.	n.a.	1983–84	101	905	1 155	2 162
1985	n.a.	n.a.	n.a.	n.a.	1984–85	99	918	1 103	2 120
1986	n.a.	n.a.	n.a.	n.a.	1985–86	88	916	1 082	2 087
1987	n.a.	n.a.	n.a.	n.a.	1986–87	86	874	913	1 873

(a) At 31 December until 1948: at 30 June for 1950 and subsequent years.
(b) Area of State, 68 300 square kilometres.
(c) Excludes areas under pulpwood concessions and exclusive forest permits.
(d) Area of sown grasses cut for hay, seed and green fodder is included under 'crops'.
(e) Not available on a comparable basis.
(f) From 1972–73 area of sown grasses cut for hay, seed and green fodder are included under 'sown grasses'.
(g) Not strictly comparable with earlier years due to changes in definition of a 'rural establishment'.

(Chapter 12) **Area and Production of Principal Crops, Tasmania**

Year	Barley for grain			Oats for grain			Wheat for grain			Blue peas		
	Area	Total production	Yield per hectare	Area	Total production	Yield per hectare	Area	Total production	Yield per hectare	Area	Total production	Yield per hectare
	ha	tonnes	tonnes	ha	tonnes	tonnes	ha	tonnes	tonnes	ha	tonnes	tonnes
1860–61	2 524	2 877	1.14	12 263	16 844	1.37	26 891	38 267	1.42			
1870–71	3 082	3 676	1.19	12 523	12 568	1.00	23 222	24 240	1.04			
1880–81	3 358	3 844	1.14	8 034	7 990	0.99	20 243	20 271	1.00			
1890–91	1 771	2 269	1.28	8 393	9 444	1.13	13 133	17 378	1.32	n.a.	n.a.	n.a.
1900–01	1 822	2 657	1.46	18 240	25 580	1 40	20 973	30 011	1.43			
1910–11	2 119	3 234	1.53	25 854	37 515	1.45	21 142	30 290	1.43			
1920–21	2 489	3 667	1.47	20 426	27 530	1.35	11 446	15 294	1.34	3 476	4 945	1.42
1921–22	2 930	3 794	1.29	22 113	28 066	1.27	11 325	15 599	1.38	4 182	5 212	1.25
1922–23	2 309	3 455	1.50	23 801	30 450	1.28	10 216	15 394	1.51	3 532	4 377	1.24
1923–24	1 712	2 151	1 26	20 825	24 723	1.19	5 869	8 260	1.41	2 927	4 346	1.48
1924–25	1 218	1 153	0.95	18 686	19 381	1.04	5 242	6 254	1.19	3 112	3 362	1.08
1925–26	2 114	2 059	0.97	14 869	15 191	1.02	7 726	10 692	1.38	3 324	2 891	0.87
1926–27	2 293	3 405	1.48	19 571	24 673	1.26	9 386	14 513	1.55	3 043	4 055	1.33
1927–28	2 064	3 214	1.56	17 381	25 452	1.46	8 531	20 896	2.45	3 672	5 631	1.53
1928–29	1 867	2 252	1.21	15 217	18 389	1.21	9 134	12 306	1.35	3 960	4 624	1.17
1929–30	2 806	3 795	1.35	15 807	21 365	1.35	6 801	10 158	1.49	4 097	6 031	1.47
1930–31	2 506	3 832	1.53	14 536	19 141	1.32	7 732	10 581	1.37	2 859	4 060	1.42
1931–32	3 390	2 721	0.80	7 451	6 488	0.87	4 744	4 944	1.04	2 439	2 079	0.85
1932–33	3 478	4 808	1.38	12 404	15 059	1.21	8 492	11 704	1.38	3 687	5 688	1.54
1933–34	3 173	3 915	1.23	12 626	15 532	1.23	9 752	15 153	1.55	5 663	6 592	1.16
1934–35	2 339	3 989	1.71	14 816	19 168	1.29	6 740	8 311	1.23	5 283	4 722	0.89
1935–36	2 115	2 107	1.00	9 683	10 123	1.05	4 210	5 027	1.19	4 116	3 430	0.83
1936–37	2 811	5 470	1.95	8 884	13 659	1.54	8 627	15 430	1.79	2 613	3 912	1.50
1937–38	3 762	6 958	1.85	13 128	18 767	1.43	8 531	14 216	1.67	1 882	2 707	1.44
1938–39	3 518	4 731	1.34	10 049	11 727	1.17	3 986	5 548	1.39	1 787	2 050	1.15
1939–40	3 125	4 446	1.42	9 352	9 626	1.03	3 033	2 911	0.96	2 113	3 407	1.61
1940–41	2 286	3 349	1.47	7 099	7 569	1.07	3 253	3 794	1.17	3 830	5 237	1.37
1941–42	2 153	2 672	1.24	11 043	15 248	1.38	2 596	3 924	1.51	7 485	8 452	1.13
1942–43	1 104	1 428	1.29	5 325	5 310	1.00	1 671	1 982	1.19	10 989	10 961	1.00
1943–44	1 391	2 150	1.55	3 943	5 438	1.38	1 958	3 301	1.69	15 176	15 785	1.04
1944–45	2 189	3 616	1.65	5 977	7 630	1.28	1 551	2 504	1.61	8 828	13 014	1.47
1945–46	2 730	2 803	1.03	5 656	5 120	0.91	2 016	1 801	0.89	9 420	7 922	0.84
1946–47	2 532	3 538	1.40	9 181	10 825	1.18	3 051	3 763	1.23	4 773	6 364	1.33
1947–48	3 298	4 961	1.50	6 910	6 548	0.95	3 147	3 195	1.02	2 783	3 938	1.42
1948–49	2 966	4 728	1.59	4 734	4 756	1.00	2 779	4 211	1.52	2 625	3 999	1.52
1949–50	1 759	2 975	1.69	9 232	10 499	1.14	2 215	3 440	1.55	3 101	3 955	1.28
1950–51	1 320	2 061	1.56	9 486	7 802	0.82	2 152	2 564	1.19	3 395	4 630	1.36
1951–52	1 716	3 400	1.98	10 740	10 803	1.01	1 458	2 541	1.74	3 078	5 338	1.73
1952–53	3 253	4 930	1.52	8 114	5 197	0.64	2 707	4 227	1.56	1 411	1 903	1.35
1953–54	3 819	6 738	1.76	8 141	8 381	1.03	3 921	7 116	1.81	2 159	3 096	1.43
1954–55	2 936	4 541	1.55	9 154	8 212	0.90	2 955	4 286	1.45	2 292	3 093	1.35
1955–56	2 558	4 339	1.70	11 604	9 964	0.86	2 519	3 478	1.38	2 334	3 690	1.58
1956–57	2 865	5 341	1.86	6 701	4 594	0.69	1 578	2 393	1.52	3 349	5 088	1.52
1957–58	3 393	6 140	1.81	8 381	8 762	1.05	2 381	4 148	1.74	2 923	3 854	1.32
1958–59	3 777	6 696	1.77	8 984	8 921	0.99	2 605	4 423	1.70	1 002	1 302	1.30
1959–60	5 016	9 511	1.90	8 910	9 305	1.04	3 344	4 912	1.47	1 285	2 148	1.67
1960–61	6 204	7 821	1.26	9 449	7 114	0.75	2 797	4 003	1.43	1 332	1 198	0.90
1961–62	7 579	13 794	1.82	10 908	10 676	0.98	6 300	9 327	1.48	1 566	2 814	1.80
1962–63	7 993	14 340	1.79	12 587	15 046	1.20	6 208	11 322	1.82	2 299	3 409	1.48
1963–64	5 581	9 414	1.69	12 280	15 339	1.25	7 107	13 047	1.84	2 087	2 693	1.29
1964–65	6 264	12 031	1.92	11 366	9 463	0.83	6 801	9 842	1.45	1 603	2 752	1.72
1965–66	8 056	15 541	1.93	11 449	12 304	1.07	5 709	9 955	1.74	2 223	2 779	1.25
1966–67	8 521	17 540	2.06	14 532	17 236	1.19	5 159	10 412	2.02	1 769	3 039	1.72
1967–68	9 733	20 096	2.06	14 314	18 430	1.29	4 864	8 548	1.76	1 725	2 540	1.47
1968–69	10 608	20 092	1.89	12 721	10 598	0.83	7 039	11 088	1.58	1 358	2 160	1.59
1969–70	12 016	24 896	2.07	8 971	8 272	0.92	5 962	9 531	1.60	1 577	3 224	2.04
1970–71	12 884	29 825	2.31	9 444	8 839	0.94	4 479	7 638	1.71	2 023	4 608	2.28
1971–72	12 576	27 753	2.21	6 432	7 065	1.10	4 570	8 299	1.82	1 025	1 650	1.61
1972–73	12 802	18 711	1.46	6 477	7 144	1.10	4 251	7 701	1.81	504	387	0.77
1973–74	11 121	23 790	2.13	9 173	8 247	0.89	2 521	3 510	1.39	587	1 027	1.74
1974–75	12 020	27 266	2.27	6 069	5 496	0.90	1 535	2 282	1.48	969	2 171	2.24
1975–76	11 475	18 389	1.60	3 924	3 497	0.89	1 644	1 728	1.05	209	261	1.25
1976–77	11 644	24 571	2.11	6 387	8 801	1.38	1 980	3 929	1.98	81	139	1.72
1977–78	11 444	19 403	1.70	4 616	4 279	0.93	1 257	1 545	1.23	326	417	1.28
1978–79	11 938	26 971	2.26	8 564	11 826	1.38	1 366	2 867	2.10	466	928	1.99
1979–80	10 558	17 304	1.60	7 489	7 937	1.10	1 972	3 727	1.90	548	684	1.20
1980–81	10 056	18 307	1.82	8 781	11 146	1.26	1 614	2 545	1.57	413	587	1.42
1981–82	12 108	23 267	1.92	9 923	13 381	1.35	1 293	2 342	1.81	459	740	1.61
1982–83	12 358	21 925	1.80	7 965	8 912	1.10	928	1 489	1.60	330	520	1.60
1983–84	15 059	34 119	2.30	13 978	24 729	1.80	1 142	2 841	2.50	388	981	2.50
1984–85	12 352	29 700	2.40	9 851	15 855	1.60	2 456	4 389	1.80	799	2 079	2.60
1985–86	12 209	27 722	2.27	10 264	16 530	1.61	1 837	4 014	2.18	1 042	2 133	2.05
1986–87	8 487	20 681	2.44	7 765	11 215	1.44	1 729	4 739	2.74	983	1 222	1.24

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(Chapter 12) Area and Production of Principal Crops, Tasmania—*continued*

Year	Potatoes			Hops			Pasture hay			Apples		
	Area	Total production	Yield per hectare	Bearing area	Total production	Yield per hectare	Area	Total production	Yield per hectare	Bearing area (a)	Total production	Yield per hectare
	ha	tonnes	tonnes	ha	tonnes	tonnes	ha	tonnes	tonnes	ha	tonnes	tonnes
1860–61	3 084	34 128	11.07	n.a.	n.a.	n.a.	12 880	63 318	4.92		2 267	
1870–71	3 975	36 606	9.21	260	339	1.30	13 602	41 417	3.04		2 819	
1880–81	4 217	33 070	7.84	230	292	1.27	12 794	36 459	2.85	n.a.	2 953	n.a.
1890–91	8 147	74 332	9.12	151	196	1.30	18 365	52 856	2.88		7 030	
1900–01	9 335	95 368	10.22	253	316	1.25	24 868	95 710	3.85		10 497	
1910–11	10 615	71 215	6.71	420	805	1.92	29 539	117 039	3.96		25 681	
1920–21	12 950	90 102	6.96	516	845	1.64	45 980	179 636	3.91	10 364	44 941	4.34
1921–22	14 890	109 351	7.34	572	995	1.74	37 006	139 190	3.76	10 829	56 982	5.26
1922–23	13 924	102 825	7.38	599	986	1.65	40 504	169 967	4.20	10 372	59 592	5.75
1923–24	14 989	101 540	6.77	604	1 040	1.72	39 329	146 614	3.73	10 393	36 006	3.46
1924–25	14 638	84 715	5.88	605	1 009	1.67	35 590	123 054	3.46	10 383	42 103	4.05
1925–26	13 431	68 422	5.09	483	791	1.64	37 472	116 764	3.12	10 311	78 719	7.63
1926–27	13 753	115 931	8.43	528	974	1.84	39 776	153 627	3.86	10 120	55 248	5.46
1927–28	17 951	141 065	7.86	514	1 119	2.18	34 710	126 929	3.66	10 237	89 025	8.70
1928–29	15 094	76 429	5.06	480	875	1.82	32 452	121 344	3.74	10 219	47 628	4.66
1929–30	13 647	92 600	6.79	472	872	1.85	32 437	121 723	3.75	9 562	75 221	7.87
1930–31	15 066	96 818	6.43	393	760	1.93	33 697	131 027	3.89	9 672	72 394	7.48
1931–32	14 727	96 920	6.58	345	725	2.10	34 118	94 081	2.76	9 377	111 334	11.87
1932–33	14 475	99 809	6.90	321	628	1.96	37 501	143 403	4.20	9 402	84 015	8.94
1933–34	14 778	82 578	5.59	328	730	2.22	31 414	111 153	3.54	9 436	94 360	10.00
1934–35	14 714	71 142	4.83	334	831	2.49	38 857	152 492	3.92	9 485	74 947	7.90
1935–36	14 050	87 183	6.21	352	981	2.79	30 247	98 443	2.53	9 296	75 251	8.09
1936–37	14 960	140 781	9.41	365	950	2.60	36 177	139 068	3.84	8 745	87 844	10.05
1937–38	13 139	101 574	7.73	357	958	2.68	29 561	114 809	3.88	8 881	91 292	10.28
1938–39	10 803	90 764	8.40	373	1 041	2.79	32 358	111 291	3.44	8 684	109 048	12.56
1939–40	12 323	116 245	9.43	368	808	2.20	38 957	143 674	3.69	8 850	98 075	11.08
1940–41	15 121	115 871	7.66	369	1 351	3.66	30 789	96 708	3.14	8 808	113 277	12.86
1941–42	12 400	111 613	9.00	427	1 280	3.00	37 488	149 997	4.00	8 970	121 107	13.50
1942–43	16 359	138 112	8.44	448	1 183	2.64	33 209	111 721	3.36	8 889	109 410	12.31
1943–44	24 484	221 296	9.04	435	1 267	2.91	40 178	156 303	3.89	8 896	152 846	17.18
1944–45	32 817	350 773	4.55	441	1 102	2.50	38 855	148 253	3.82	8 723	125 165	14.35
1945–46	22 762	239 930	10.54	445	904	2.03	40 371	118 958	2.95	8 702	162 353	18.66
1946–47	17 493	173 359	9.91	490	1 005	2.05	42 093	172 103	4.09	8 544	80 548	9.43
1947–48	16 342	145 037	8.88	506	1 113	2.20	34 137	139 857	4.10	8 239	150 389	18.25
1948–49	13 079	133 915	10.24	508	694	1.37	36 656	153 118	4.18	7 826	48 828	6.24
1949–50	13 804	123 958	8.98	518	977	1.89	36 962	158 151	4.28	7 661	91 330	11.92
1950–51	12 780	125 990	9.86	518	1 125	2.17	39 007	163 301	4.19	7 378	92 359	12.52
1951–52	12 753	153 424	12.03	531	778	1.47	39 563	175 051	4.42	7 273	93 921	12.91
1952–53	14 304	116 338	8.13	524	1 367	2.61	44 534	195 289	4.39	7 200	71 575	9.94
1953–54	13 971	146 616	10.49	518	973	1.88	49 877	245 459	4.92	7 184	101 047	14.07
1954–55	10 606	102 621	9.68	539	1 353	2.51	39 051	160 495	4.11	6 890	95 426	13.85
1955–56	8 434	79 181	9.39	531	1 437	2.71	55 505	265 619	4.79	6 950	112 896	16.24
1956–57	7 740	91 140	11.78	569	974	1.71	49 837	242 209	4.86	6 754	64 792	9.59
1957–58	8 780	103 129	11.75	571	1 302	2.28	44 581	208 062	4.67	6 804	126 403	18.58
1958–59	6 550	87 279	13.32	579	1 535	2.65	62 250	306 923	4.93	6 651	94 931	14.27
1959–60	6 283	99 573	15.85	581	1 270	2.19	51 211	224 778	4.39	6 509	104 266	16.02
1960–61	4 401	39 677	9.02	569	1 279	2.25	69 206	331 206	4.79	6 404	106 571	16.64
1961–62	4 504	72 709	16.14	571	1 287	2.25	63 632	289 971	4.56	6 239	149 436	23.95
1962–63	5 600	83 870	14.98	588	1 298	2.21	66 952	318 028	4.75	6 268	119 297	19.03
1963–64	4 373	66 470	15.20	592	717	1.21	60 557	253 175	4.18	6 291	162 791	25.88
1964–65	3 801	57 978	15.25	597	947	1.59	72 947	370 204	5.07	6 286	118 250	18.81
1965–66	4 853	77 626	16.00	603	1 392	2.31	59 824	261 366	4.37	6 254	159 343	25.48
1966–67	4 159	74 476	17.91	594	948	1.60	82 225	443 919	5.40	6 165	120 040	19.47
1967–68	4 435	80 327	18.11	608	1 363	2.24	72 373	314 060	4.34	6 048	151 322	25.02
1968–69	4 638	73 278	15.80	616	1 582	2.57	85 212	502 159	5.89	5 863	135 986	23.19
1969–70	3 790	67 995	17.94	565	1 268	2.24	69 526	367 340	5.28	5 804	140 977	24.29
1970–71	3 640	72 591	19.94	452	1 077	2.38	85 656	447 766	5.23	5 715	140 463	24.58
1971–72	3 593	70 370	19.59	539	1 159	2.15	81 176	449 936	5.54	5 218	111 887	21.44
1972–73	3 330	78 286	23.51	616	1 450	2.35	53 937	215 580	4.00	4 980	133 449	26.80
1973–74	3 127	62 866	20.10	703	1 949	2.77	88 884	448 355	5.04	4 148	113 012	27.24
1974–75	4 143	95 610	23.07	662	1 439	2.17	78 557	375 969	4.79	3 335	95 247	28.56
1975–76	3 354	95 614	28.51	513	1 129	2.20	70 262	322 235	4.59	2 947	72 529	24.61
1976–77	3 705	112 269	30.30	587	1 330	2.27	69 730	334 961	4.80	2 741	71 781	26.19
1977–78	3 592	107 240	29.86	567	1 201	2.12	46 480	166 495	3.58	2 601	63 444	24.39
1978–79	3 646	124 385	34.12	578	1 457	2.52	65 835	295 464	4.49	2 693	85 230	31.65
1979–80	4 115	136 197	33.10	620	1 183	1.90	57 689	243 527	4.20	2 661	74 434	28.00
1980–81	4 335	155 965	35.97	672	1 558	2.32	61 555	241 817	3.93	2 758	76 033	27.57
1981–82	4 438	160 797	36.20	811	1 608	1.98	60 939	233 471	3.83	2 668	67 376	25.25
1982–83	4 749	173 147	36.50	889	1 589	1.80	48 588	157 117	3.20	2 545	69 421	27.30
1983–84	5 203	213 090	41.00	896	1 902	2.10	63 208	270 436	4.30	2 553	56 800	22.20
1984–85	5 209	203 472	39.1	869	1 341	1.54	51 667	212 544	4.10	2 588	61 624	23.81
1985–86	4 832	193 485	40.04	835	1 178	1.41	56 664	252 944	4.46	2 661	56 983	21.41
1986–87	5 744	223 245	38.87	651	1 165	1.79	45 116	195 081	4.32	2 612	48 088	18.41

(*a*) From 1980–81: total area.

(Chapter 12) Livestock Numbers: Production of Wool: Lambing, Tasmania

Year	Livestock (a)				Production of wool (a)			Lambing	
	Horses	Cattle	Sheep	Pigs	Number of sheep and lambs shorn	Average yield per sheep and lamb shorn (including crutchings)	Production of wool (including dead, fellmongered & exported on skins)	Ewes mated	Lambs marked
	'000	'000	'000	'000	'000	kg	'000 kg	'000	'000
1860	21	83	del 701	31			2058		
1870	23	101	1 350	49			1 881		
1880	25	127	1 794	48			4 094		
1890	31	162	1 619	82	n.a.	n.a.	4 075	n.a.	n.a.
1900	32	166	1 684	68			3 064		
1910	41	202	1 788	64			6 050		
1920–21	39	208	1 571	38	1 551	2.94	5 218	416	299
1921–22	38	217	1 551	50	1 428	3.25	5 278	506	378
1922–23	37	218	1 558	46	1 503	3.26	5 542	524	411
1923–24	38	220	1 558	47	1 507	3.13	5 312	517	392
1924–25	37	226	1 614	47	1 630	3.16	5 662	557	423
1925–26	38	212	1 619	41	1 639	3.18	5 699	554	390
1926–27	37	213	1 808	39	1 738	2.93	5 594	563	433
1927–28	36	211	1 905	42	1 859	2.99	6 021	629	488
1928–29	35	209	2 001	48	1 902	3.22	6 759	640	502
1929–30	34	215	2 091	53	1 983	3.14	6 804	679	534
1930–31	33	230	2 120	55	1 961	3.11	6 713	695	547
1931–32	31	232	2 012	41	1 913	3.14	6 668	647	478
1932–33	30	251	2 041	41	1 940	3.16	6 895	679	526
1933–34	30	262	2 035	38	1 991	2.91	6 441	686	517
1934–35	31	262	2 038	40	1 976	2.90	6 366	672	497
1935–36	31	270	2 140	45	2 010	3.37	7 394	735	586
1936–37	31	262	2 234	40	1 106	2.72	6 381	791	594
1937–38	32	255	2 521	43	2 460	2.60	7 076	873	722
1938–39	30	262	2 626	45	2 432	3.03	7 946	940	737
1939–40	30	252	2 677	45	2 509	3.08	8 316	940	756
1940–41	29	259	2 682	47	2 517	2.78	7 746	988	764
1941–42	29	253	2 398	45	2 416	3.04	7 704	844	669
1942–43	27	245	2 227	49	2 293	2.98	7 827	785	655
1943–44	26	230	2 188	46	2 260	2.93	8 130	811	669
1944–45	26	225	2 156	47	2 235	2.79	7 404	756	629
1945–46	25	216	1 926	47	2 015	2.73	7 411	701	509
1946–47	24	220	1 933	47	2 005	3.04	7 549	577	440
1947–48	23	244	2 087	45	2 085	3.18	6 952	779	656
1948–49	22	266	2 160	37	2 198	3.09	7 641	803	662
1949–50	21	275	2 170	36	2 255	2.97	7 692	800	652
1950–51	20	272	2 182	45	2 245	2.99	7 824	774	637
1951–52	19	226	2 338	47	2 379	3.42	9 305	839	726
1952–53	18	275	2 422	39	2 502	3.19	8 984	894	768
1953–54	17	295	2 465	46	2 553	3.16	9 124	916	788
1954–55	16	319	2 595	58	2 715	3.53	10 794	968	884
1955–56	15	332	2 673	49	2 733	3.45	10 624	979	877
1956–57	14	354	2 943	52	3 082	3.78	13 009	1 150	1 056
1957–58	13	371	3 298	63	3 388	3.50	13 234	1 266	1 199
1958–59	12	374	3 536	69	3 673	3.57	14 803	1 381	1 269
1959–60	11	375	3 494	67	3 834	3.44	15 241	1 461	1 354
1960–61	9	394	3 439	71	3 678	3.44	14 456	1 378	1 267
1961–62	9	425	3 532	76	3 830	3.56	15 635	1 440	1 368
1962–63	8	444	3 570	70	3 783	3.64	15 677	1 419	1 310
1963–64	8	450	3 600	83	3 868	3.47	15 425	1 458	1 353
1964–65	7	451	3 792	92	3 978	4.06	17 994	1 478	1 374
1965–66	n.a.	492	4 127	96	4 318	3.88	18 986	1 651	1 594
1966–67	7	522	4 321	86	4 517	3.88	19 574	1 688	1 574
1967–68		564	4 428	87	4 572	3.34	17 376	1 779	1 522
1968–69	n.a.	586	4 395	95	4 632	4.09	21 299	1 736	1 561
1969–70		646	4 560	111	4 792	4.05	21 861	1 831	1 715
1970–71		733	4 517	113	4 806	3.99	21 671	1 889	1 705
1971–72		829	4 237	104	4 607	4.03	21 063	1 805	1 617
1972–73		900	3 824	85	4 251	3.76	18 154	1 604	1 369
1973–74		884	3 964	68	4 101	3.90	17 549	1 535	1 361
1974–75		921	4 136	64	4 153	4.12	18 888	1 644	1 466
1975–76	n.a.	909	4 249	70	4 352	4.13	19 951	1 677	1 515
1976–77		819	4 015	65	4 229	3.82	18 109	1 640	1 378
1977–78		733	3 969	64	4 242	4.00	18 294	1 672	1 529
1978–79		657	4 157	61	4 319	4.04	19 079	1 712	1 582
1979–80		649	4 245	63	4 550	4.00	20 003	1 861	1 706
1980–81	n.a.	659	4 381	54	4 627	3.91	20 049	1 892	1 674
1981–82		628	4 513	47	4 841	*r* 3.69	21 783	2 010	1 843
1982–83	7	559	4 451	51	4 901	*r* 3.65	21 680	2 035	1 853
1983–84	6	542	4 583	48	4 845	*r* 3.74	21 887	2 014	1 794
1984–85	6	554	4 780	47	5 000	*r* 3.74	21 935	2 100	1 908
1985–86	6	570	5 083	45	5 270	3.88	24 994	2 018	1 859
1986–87	4	535	4 954	46	5 234	3.91	26 431	2 016	1 849

(*a*) Up to 1925–26 numbers recorded were at varying dates in the years shown; from 1926 to 1940 at 31 December; from 1941–42 at 31 March.

(Chapter 12) Livestock Slaughtered (a) for Human Consumption, Tasmania

Year	Cattle and calves				Sheep and lambs			Pigs
	Bulls, bullocks & steers	Cows and heifers	Calves	Total	Sheep	Lambs	Total	
1924–25	21 068	12 544	2 542	36 154	212 983	63 134	276 117	55 229
1929–30	20 430	13 034	1 814	35 278	228 090	113 437	341 527	64 287
1939–40	32 685	12 110	3 633	48 428	248 372	212 585	460 957	73 398
1944–45	27 290	14 356	4 701	46 527	323 797	185 616	509 413	58 068
1949–50	29 331	23 736	4 580	57 647	245 691	262 360	508 051	50 861
1950–51	32 199	28 921	8 637	69 757	234 084	250 535	484 619	57 787
1951–52	33 352	29 506	8 729	71 587	226 377	256 116	482 493	65 893
1952–53	32 913	25 270	12 297	70 480	269 776	306 739	576 515	65 520
1953–54	22 630	25 188	13 955	61 773	286 665	307 326	593 991	59 473
1954–55	26 741	32 871	15 333	74 945	287 103	356 103	643 206	79 305
1955–56	32 259	36 370	19 786	88 415	256 188	388 802	644 990	87 609
1956–57	38 494	38 341	25 195	102 030	280 082	403 859	683 941	82 032
1957–58	42 028	45 294	30 534	117 856	283 242	451 214	734 456	90 593
1958–59	42 525	49 046	35 923	127 494	362 988	546 196	909 184	107 489
1959–60	47 147	56 885	40 548	144 580	504 961	661 470	1 166 431	114 538
1960–61	35 515	43 309	36 170	114 994	474 690	601 042	1 075 732	111 457
1961–62	42 614	48 638	44 230	135 482	510 626	649 306	1 159 932	120 450
1962–63	49 510	62 317	46 149	157 976	465 996	628 757	1 094 753	115 424
1963–64	51 518	70 885	53 823	176 226	544 945	582 113	1 127 058	123 502
1964–65	52 946	70 510	50 610	174 066	424 810	562 135	986 945	134 526
1965–66	47 066	60 664	46 514	154 244	566 671	597 197	1 163 868	146 266
1966–67	52 475	67 206	50 789	170 470	552 235	606 859	1 159 094	148 913
1967–68	57 871	66 016	47 872	171 759	600 124	524 850	1 124 974	142 986
1968–69	68 376	64 160	45 236	177 772	567 501	673 446	1 240 947	138 954
1969–70	78 618	66 473	32 765	177 856	608 311	688 664	1 296 975	160 112
1970–71	78 926	61 139	22 011	162 076	713 204	680 679	1 393 883	170 579
1971–72	96 255	69 186	19 346	184 787	812 960	662 193	1 475 153	165 007
1972–73	124 672	110 177	25 933	260 782	636 501	641 718	1 278 219	152 004
1973–74	126 251	103 552	29 554	259 357	335 566	489 697	825 263	115 625
1974–75	149 285	75 382	37 450	262 117	402 813	577 119	979 932	101 359
1975–76	164 059	119 418	64 536	348 013	454 912	613 611	1 068 532	94 090
1976–77	144 910	139 910	72 888	357 708	469 125	523 522	992 647	99 603
1977–78	160 977	132 802	68 686	362 465	386 772	650 067	1 036 839	92 474
1978–79	123 590	103 152	54 466	281 209	345 388	502 890	848 278	90 520
1979–80	95 600	83 000	39 500	218 100	316 900	613 200	930 100	88 700
1980–81	95 856	86 084	42 170	224 110	403 273	646 903	1 050 176	88 564
1981–82	106 569	91 491	53 830	251 890	451 978	690 711	1 142 689	77 163
1982–83	109 417	106 467	59 604	275 548	563 288	764 383	1 327 671	77 251
1983–84	80 367	73 236	46 398	200 001	418 917	756 941	1 175 858	80 224
1984–85	83 445	63 698	38 184	185 327	427 344	683 949	1 111 293	83 055
1985–86	85 520	57 689	32 163	175 372	466 569	665 704	1 132 273	84 380
1986–87	103 894	68 854	32 157	204 905	509 674	670 640	1 180 314	89 618

(*a*) Including livestock slaughtered on farms.

(Chapter 12) Value of Agricultural Commodities Produced, Tasmania ($ million)

Year	Crops (a)		Livestock slaughterings and other disposals		Livestock products		Total agriculture	
	Gross	Local	Gross	Local	Gross	Local	Gross	Local
1970–71	40.1	29.2	28.1	25.9	41.9	40.2	110.2	95.3
1971–72	33.7	24.0	31.5	29.0	47.0	45.1	112.2	98.1
1972–73	40.0	28.3	43.6	40.4	64.8	61.7	148.4	130.3
1973–74	46.6	37.0	58.0	54.0	60.0	57.3	164.7	148.2
1974–75	49.4	39.7	31.7	29.1	56.5	53.1	137.6	121.9
1975–76	43.0	35.2	34.1	31.0	60.7	57.0	137.7	123.3
1976–77	55.7	48.7	46.1	42.2	72.1	68.2	173.9	159.1
1977–78	54.0	47.8	54.8	47.9	76.1	72.2	184.8	167.9
1978–79	76.9	68.8	91.7	80.2	86.7	82.7	255.4	231.6
1979–80	70.4	61.7	100.3	87.4	93.7	89.0	264.4	238.0
1980–81	80.3	71.1	94.1	82.4	100.2	95.1	274.6	248.6
1981–82	92.3	81.4	90.2	78.8	117.7	112.7	300.2	272.9
1982–83	106.3	93.8	100.7	87.9	131.5	126.3	340.4	309.4
1983–84	134.0	121.3	95.6	83.2	126.9	121.0	356.4	325.6
1984–85	131.7	116.0	115.3	106.6	135.1	130.2	382.2	352.
1985–86	147.8	129.6	95.1	88.6	147.3	140.5	390.2	358.7
1986–87	145.0	128.9	111.5	104.5	180.4	161.9	436.9	395.3

(*a*) Excludes crops and pasture harvested for green feed or silage.

(Chapter 12) **Production of Meat, Tasmania (Tonnes: Carcass Weight)**

Year	Beef and veal			Mutton and lamb			Pigmeat (a)	Total
	Beef	Veal	Total	Mutton	Lamb	Total		
1924–25		8 233	8 233	4 154	888	5 042	2 561	15 836
1929–30		8 153	8 153	4 448	1 595	6 043	2 848	17 044
1939–40	10 626	165	10 791	4 845	2 989	7 834	3 560	22 185
1949–50	12 299	169	12 468	4 896	4 173	9 069	2 597	24 134
1955–56	15 133	530	15 663	5 260	6 707	11 967	3 693	31 323
1956–57	17 592	612	18 204	5 812	6 998	12 810	3 402	34 416
1957–58	19 635	726	20 361	5 694	7 739	13 433	4 284	38 078
1958–59	19 893	839	20 732	7 444	9 223	16 667	4 990	42 389
1959–60	22 610	906	23 516	10 267	10 846	21 113	5 438	50 067
1960–61	16 388	777	17 165	9 513	9 715	19 228	5 138	41 531
1961–62	19 076	910	19 989	10 228	10 326	20 554	5 515	46 058
1962–63	23 076	999	24 075	9 614	10 083	19 697	5 549	49 321
1963–64	24 988	1 337	26 325	11 101	9 300	20 401	6 022	52 748
1964–65	25 741	951	26 692	9 225	9 189	18 414	6 691	51 797
1965–66	22 429	951	23 380	11 697	9 739	21 436	7 136	51 952
1966–67	24 124	967	25 091	11 412	9 825	21 237	7 279	53 607
1967–68	24 509	977	25 486	11 666	8 497	20 163	7 001	52 650
1968–69	27 583	802	28 385	11 701	11 112	22 813	7 137	58 335
1969–70	30 909	599	31 509	12 767	11 282	24 049	8 007	63 564
1970–71	29 481	398	29 879	14 755	11 318	26 073	8 530	64 482
1971–72	34 422	374	34 796	16 314	10 875	27 189	8 266	70 251
1972–73	46 946	525	47 471	12 201	10 327	22 528	7 389	77 388
1973–74	45 669	613	46 282	6 672	8 096	14 768	5 477	66 527
1974–75	47 592	721	48 313	7 984	9 508	17 492	4 872	70 677
1975–76	57 924	1 242	59 166	8 997	9 849	18 846	4 516	82 529
1976–77	55 790	1 613	57 403	8 494	8 189	16 683	4 946	79 032
1977–78	59 779	1 556	61 335	7 035	9 849	16 884	4 785	83 004
1978–79	46 269	1 152	47 421	6 833	7 883	14 716	4 834	66 971
1979–80	36 561	835	37 396	5 656	9 017	14 673	4 862	56 931
1980–81	36 812	924	37 736	7 420	9 976	17 396	4 767	59 899
1981–82	40 561	1 266	41 827	8 492	10 647	19 139	4 262	65 228
1982–83	43 518	1 376	44 894	10 364	11 840	22 204	4 196	71 294
1983–84	31 374	960	32 334	8 177	11 745	19 922	4 315	56 572
1984–85	30 821	880	31 701	8 297	10 701	18 998	4 752	55 451
1985–86	30 843	914	31 757	9 382	10 298	42 055	4 665	56 102
1986–87	37 780	1 379	39 159	9 957	10 423	20 380	5 491	65 030

(*a*) Includes pork for manufacture into bacon and ham.

(Chapter 12) **Weighted Average Prices Paid to Farmers Per Unit of Selected Farm Products, Tasmania ($ per tonne)**

Year	Cereal for grain		Hops	Orchard fruit		Small fruit		Vegetables		Wool, greasy
	Wheat	Barley		Apples	Pears	Currants	Rasp-berries	Potatoes	Peas	
1929–30	18	15	198	17	23	40	40	13	n.a.	220
1934–35	12	13	309	28	28	40	40	17	n.a.	200
1939–40	12	17	331	23	25	70	70	18	n.a.	260
1944–45	18	23	397	20	20	90	70	25	n.a.	350
1949–50	50	32	772	64	73	130	130	30	n.a.	1 320
1954–55	50	74	1 213	101	114	180	180	79	30	1 410
1959–60	51	59	1 389	99	100	220	200	39	28	1 150
1960–61	51	63	1 367	102	126	260	180	89	31	1 060
1961–62	59	64	1 433	104	87	260	220	52	26	1 080
1962–63	54	61	1 433	112	122	240	220	25	60	1 210
1963–64	53	63	1 433	107	111	260	220	64	115	1 480
1964–65	49	61	1 499	113	129	220	220	116	103	1 080
1965–66	51	58	1 565	100	68	200	220	37	96	1 230
1966–67	53	63	1 653	124	119	240	240	54	108	1 120
1967–68	54	66	1 698	110	102	290	310	48	117	960
1968–69	42	57	1 698	107	124	290	330	29	111	1 050
1969–70	53	52	1 698	110	136	310	330	46	99	880
1970–71	48	51	1 698	103	134	330	350	42	119	740
1971–72	54	47	1 874	103	117	330	350	37	115	1 900
1972–73	52	52	1 961	121	174	350	350	57	106	2 290
1973–74	104	77	1 649	121	117	390	410	87	116	1 920
1974–75	104	92	860	149	181	470	530	59	131	1 370
1975–76	97	99	1 395	173	171	500	500	77	147	1 570
1976–77	82	111	1 695	165	195	550	580	83	156	2 100
1977–78	86	121	1 957	202	261	700	740	83	158	2 090
1978–79	109	122	2 202	195	248	720	870	102	158	2 340
1979–80	128	124	2 553	223	284	780	950	104	159	2 700
1980–81	139	150	3 002	220	352	800	1 080	110	177	2 770
1981–82	136	162	3 183	281	331	666	1 173	116	223	2 820
1982–83	139	182	4 355	369	446	549	915	130	243	2 717
1983–84	159	171	4 980	401	553	654	896	134	245	2 958
1984–85	162	169	5 157	439	536	574	1 069	135	263	3 34
1985–86	159	145	n.a.	596	572	700	1 079	143	208	3 483
1986–87	145	150	n.a.	579	665	721	1 070	148	215	4 1173

(Chapter 13) Assayed Contents of Metallic Minerals Produced and Coal Production, Tasmania

Year	Cadmium	Copper	Gold	Iron	Lead	Manganese
	tonnes	*tonnes*	*kg*	*tonnes*	*tonnes*	*tonnes*
1953	73	9 045	528	–	10 199	–
1955	50	8 529	525	–	11 448	–
1960	57	11 867	747	–	13 249	175
1961	63	12 947	836	–	12 450	188
1962	73	14 748	999	–	14 991	268
1963	75	17 075	1 133	–	15 222	262
1964	78	15 118	1 069	–	15 594	247
1965	71	15 411	1 023	–	14 466	237
1966	76	17 278	1 135	–	15 828	258
1967	74	17 540	1 167	–	15 375	247
1968	75	16 867	1 135	502 462	15 152	250
1969	77	18 983	1 252	1 388 328	15 145	258
1970	70	23 934	1 335	1 346 065	13 934	209
1971	84	25 525	1 793	1 497 486	16 167	509
1972	138	28 298	2 021	1 623 450	26 806	2 205
1973	178	25 821	1 511	1 678 146	20 236	2 399
1974	126	29 086	1 586	1 514 373	19 017	385
1975	167	26 460	1 668	1 431 041	19 552	265
1976	157	25 342	1 495	1 542 306	18 034	232
1977	199	22 002	1 891	1 413 476	22 800	427
1978	188	23 908	1 912	1 446 024	22 754	341
1979	188	22 591	1 747	1 528 225	22 160	269
1980	119	23 013	1 311	1 472 923	15 511	198
1981	181	22 402	1 950	1 543 938	25 517	249
1982	197	20 906	1 737	1 442 056	30 619	281
1983	207	27 516	2 077	1 533 922	34 777	282
1984	204	25 569	1 922	1 393 118	32 493	290
1985	244	27 037	2 335	1 706 874	37 985	349
1986	231	28 761	2 739	1 394 492	37 754	330

Year	Silver	Sulphur	Tin	Tungstic oxide (WO3)	Zinc	Coal production
	kg	*tonnes*	*tonnes*	*tonnes*	*tonnes*	*tonnes*
1953	38 599	42 516	801	1 069	30 247	237 370
1955	36 267	38 857	867	1 358	28 396	304 023
1960	43 483	55 636	898	1 115	35 069	302 448
1961	45 162	53 128	893	1 543	40 735	259 934
1962	52 876	37 145	1 075	1 052	48 687	276 713
1963	52 969	42 997	1 021	975	49 267	210 243
1964	55 364	57 004	1 006	1 009	50 960	153 587
1965	52 192	54 840	1 043	1 196	47 053	104 101
1966	57 013	63 804	1 047	1 327	50 651	83 990
1967	55 955	62 470	1 553	1 202	49 641	77 769
1968	54 400	53 926	3 154	1 425	48 919	92 389
1969	54 213	47 449	4 853	1 524	50 898	117 794
1970	53 343	84 502	5 018	1 434	46 922	113 529
1971	63 389	109 046	6 166	1 742	52 749	123 922
1972	99 251	164 884	6 825	1 918	85 580	132 242
1973	76 903	160 971	5 674	1 502	63 792	114 588
1974	80 180	153 767	5 950	1 304	65 311	127 460
1975	76 401	152 884	5 489	1 712	67 476	161 922
1976	71 310	154 008	6 853	2 202	62 004	189 489
1977	84 772	163 486	6 634	2 534	78 405	198 966
1978	86 193	148 966	7 270	2 630	77 388	223 957
1979	76 662	84 422	6 892	2 522	75 279	237 380
1980	57 159	41 227	6 234	2 914	54 273	234 175
1981	78 177	53 683	7 057	2 983	74 413	345 951
1982	84 697	59 575	8 009	1 975	79 493	514 986
1983	94 929	60 409	5 356	1 382	82 285	472 625
1984	93 209	60 295	4 172	1 107	83 403	457 984
1985	110 191	69 733	3 127	1 534	98 778	529 587
1986	100 593	69 708	6 262	1 388	95 267	575 704

(Chapter 14) Fisheries, Tasmania

Year	Boats engaged (a)	Persons engaged (a)	Production (b)							Gross value of production (c)
			Fish				Southern rock lobster	Scallops	Abalone	
			Snoek (barracouta)	Salmon (d)	Shark	Other				
	no.	no.	'000 kg	'000 kg	'000 kg	'000 kg	'000 kg	'000 kg	'000 kg	$'000
1951-52			1 580	50	392	319	852	738	–	882
1952-53			1 819	61	1 010	231	1 222	1 465	–	1 210
1953-54	n.a.	n.a.	362	173	506	238	1 006	1 714	–	864
1954-55			673	195	301	243	1 313	2 452	–	1 112
1955-56			576	116	291	170	1 108	2 625	–	1 012
1956-57	472	958	1 100	33	235	180	954	2 664	–	1 216
1957-58	458	907	414	60	384	128	1 088	1 888	–	1 016
1958-59	438	923	644	93	360	171	1 250	2 148	–	1 328
1959-60	469	968	711	147	413	167	1 329	2 043	–	1 612
1960-61	478	1 072	373	545	439	166	1 436	2 402	–	1 920
1961-62	514	1 122	935	1 325	451	128	1 554	2 164	–	2 294
1962-63	511	1 208	512	528	377	155	1 501	2 663	–	2 254
1963-64	507	1 191	639	385	370	160	1 620	1 932	49	2 203
1964-65	503	957	915	227	299	209	1 513	1 323	225	2 686
1965-66	596	1 154	1 362	196	493	212	1 787	394	726	3 300
1966-67	618	1 200	1 037	427	455	270	1 946	341	1 999	3 653
1967-68	585	1 118	1 624	343	685	300	1 752	225	2 786	4 473
1968-69	566	1 160	1 401	174	947	248	1 700	125	2 108	4 864
1969-70	553	1 123	1 578	67	801	219	1 390	50	2 608	4 043
1970-71	529	1 090	610	201	793	335	1 607	–	3 488	5 984
1971-72	588	1 207	581	507	859	433	1 469	52	2 971	6 808
1972-73	589	1 235	915	461	497	392	1 583	515	2 172	5 739
1973-74	594	1 268	598	371	1 187	7 728	1 514	1 158	2 060	7 014
1974-75	616	1 343	760	631	651	828	1 525	1 261	2 108	6 928
1975-76	607	1 347	143	473	1 238	375	1 229	690	2 429	8 511
1976-77	640	1 439	37	573	1 130	413	1 117	498	2 368	11 662
1977-78	655	1 466	194	611	1 710	590	1 192	400	2 525	12 609
1978-79	727	1 620	38	451	1 490	626	1 305	1 077	3 100	14 636
1979-80	760	1 687	7	283	1 210	688	1 340	3 829	1 314	20 463
1980-81	781	1 678	2	200	1 288	1 037	1 553	3 359	3 743	26 514
1981-82	n.a.	n.a.	1	417	1 086	994	1 713	7 577	4 194	32 896
1982-83	n.a.	n.a.	2	211	793	841	1 887	11 573	2 968	31 140
1983-84	n.a.	n.a.	16	137	614	623	1 805	8 702	4 769	39 133
1984-85	n.a.	n.a.	4	443	1 121	(e) 6 934	1 916	2 301	4 215	47 036
1985-86	n.a.	n.a.	75	885	680	(e) 23 575	1 456	3 022	3 558	59 292
1986-87 (f)	n.a.	n.a.	25	535	579	44 553	1 582	5 020	3 245	91 004

(a) Year ended December of the first year named.
(b) Landed at Tasmanian ports, estimated live weight.
(c) Includes crabs, squid, oysters and seaweed.
(d) Australian salmon.
(e) Increase due to large catches of Jack mackerel.
(f) Increase due to inclusion of Atlantic salmon.

(Chapter 15) Hydro-Electric Commission Tasmania (a)

Year	Installed generator capacity (a)	Number of retail consumers	Gross revenue	Working expenses and other charges
	kW	no.	$'000	$'000
1929-30	49 000	n.a.	692	636
1934-35	54 250	n.a.	814	754
1939-40	104 500	n.a.	1 212	1 172
1944-45	160 500	55 073	1 776	1 588
1949-50	184 500	75 927	2 938	2 926
1959-60	541 150	117 266	14 570	14 932
1964-65	856 550	131 593	25 009	23 500
1965-66	807 550	134 679	26 293	25 569
1966-67	849 150	135 941	28 299	27 058
1967-68	945 300	139 886	27 627	28 607
1968-69	1 005 600	143 551	33 638	31 824
1969-70	1 031 600	146 958	37 296	35 095
1970-71	1 281 200	149 911	40 151	40 070
1971-72	1 309 200	152 934	46 286	46 278
1972-73	1 352 400	156 570	49 511	49 297
1973-74	1 342 400	160 307	52 730	54 026
1974-75	1 442 400	163 479	62 295	61 870
1975-76	1 462 400	167 507	72 699	72 312
1976-77	1 492 400	171 847	80 372	80 292
1977-78	1 636 400	176 005	95 519	95 269
1978-79	1 780 400	179 861	109 130	108 930
1979-80	1 780 400	183 607	120 505	119 993
1980-81	1 780 400	187 072	139 107	136 712
1981-82	1 860 300	189 723	165 236	159 270
1982-83	r 1 860 300	192 034	181 741	185 811
1983-84	1 940 200	r 195 370	215 628	218 674
1984-85	1 940 200	r 199 180	238 160	233 685
1985-86	2 056 000	203 472	256 174	246 195
1986-87	2 171 000	207 481	292 377	296 687

(a) Excludes King and Flinders Islands.

(Chapter 16) **Principal Articles Produced in Factories, Tasmania**

Year	Foodstuffs					
	Butter (a)	*Cheese (factory and farm) (b)*	*Bacon and ham (cured weight) (c)*	*Flour (incl. wheatmeal for baking)*	*Aerated waters*	*Refined zinc*
	tonnes	*tonnes*	*tonnes*	*tonnes*	*'000 litres*	*tonnes*
1939–40	5 380	1 470	1 313	17 137	1 650	74 012
1949–50	5 614	428	1 007	24 714	4 510	85 122
1959–60	12 079	372	1 162	28 007	8 356	119 785
1960–61	10 552	399	1 138	26 388	8 656	127 957
1961–62	12 376	641	1 149	26 356	8 828	131 140
1962–63	13 405	681	1 201	26 442	9 683	138 391
1963–64	13 984	1 358	1 185	24 868	9 938	140 835
1964–65	14 218	2 388	1 190	25 367	10 310	141 006
1965–66	14 229	2 989	1 079	25 022	11 111	146 221
1966–67	14 541	3 822	1 262	24 470	11 583	146 227
1967–68	13 999	4 724	1 302	23 957	12 029	131 872
1968–69	16 017	5 820	1 416	23 826	12 644	151 094
1969–70	16 343	5 407	1 403	21 947	13 354	170 931
1970–71	15 273	5 556	1 803	22 264	14 049	162 271
1971–72	15 318	5 923	1 984	22 488	14 402	175 798
1972–73	12 947	7 218	1 902	31 698	15 236	193 782
1973–74	12 398	8 475	1 931	34 643	15 751	182 749
1974–75	12 196	12 387	2 169	34 938	14 845	152 749
1975–76	10 762	13 332	2 356	30 691	16 219	137 637
1976–77	9 707	13 156	2 434	32 427	18 786	170 685
1977–78	7 910	13 903	2 505	32 780	20 082	161 173
1978–79	7 075	17 494	2 457	34 901	19 834	204 623
1979–80	5 490	15 328	2 094	37 269	18 361	191 683
1980–81	4 234	14 147	2 375	37 811	19 397	188 471
1981–82	3 964	15 167	2 634	35 068	19 108	193 714
1982–83	5 768	14 100	2 661	n.p.	n.p.	185 482
1983–84	6 191	14 080	2 519	n.p.	16 623	187 399
1984–85	7 690	12 567	2 963	n.p.	16 755	196 576
1985–86	6 180	16 695	3 258	n.p.	17 537	195 916
1986–87	5 839	17 183	3 164	n.p.	18 189	189 345

Principal Articles Produced in Factories, Tasmania — *continued*

Year	Chemicals, fertilisers, etc.			Sawn, peeled and sliced timber (d)	Miscellaneous	
	Sulphuric acid	*Super-phosphate*	*Sulphate of ammonia*		*Newsprint*	*Electricity (e)*
	tonnes	*tonnes*	*tonnes*	*'000 m²*	*tonnes*	*m k Wh*
1939–40	14 552	33 337	–	189.7	–	612
1949–50	42 747	69 943	–	298.2	30 961	1 062
1954–55	70 676	77 034	–	331.3	74 789	1 589
1959–60	129 077	104 260	58 525	400.4	89 931	2 532
1960–61	137 178	106 285	62 574	388.3	89 452	2 632
1961–62	138 636	121 143	62 319	351.6	91 199	2 733
1962–63	142 227	127 426	53 274	377.2	91 693	3 213
1963–64	161 381	134 233	43 506	403.2	93 516	3 409
1964–65	184 936	132 445	60 772	420.2	94 637	3 780
1965–66	198 551	162 441	65 135	421.2	94 707	3 896
1966–67	211 201	166 757	58 422	411.5	98 816	4 116
1967–68	185 303	145 968	13 086	413.5	94 135	3 773
1968–69	206 474	140 340	40 324	414.4	125 924	4 738
1969–70	266 449	133 245	40 563	413.7	173 314	5 140
1970–71	387 193	105 323	40 252	406.1	178 683	5 451
1971–72	558 658	104 763	41 358	412.8	181 477	5 778
1972–73	652 513	177 192	48 654	416.3	199 053	5 902
1973–74	570 156	180 458	33 191	414.3	200 852	6 010
1974–75	517 052	103 253	54 701	410.2	196 240	6 095
1975–76	466 817	57 896	23 040	373.5	206 228	6 008
1976–77	506 338	101 281	12 291	368.1	206 590	6 842
1977–78	522 154	97 012	5 292	338.5	207 621	7 179
1978–79	414 644	151 489	6 045	320.6	208 143	7 748
1979–80	302 550	132 783	1 213	355.2	221 460	7 903
1980–81	253 547	139 869	969	373.9	214 400	8 044
1981–82	335 507	126 416	..	327.2	219 429	8 122
1982–83	292 323	104 324	913	248.1	222 934	7 978
1983–84	318 492	108 216	2 643	290.1	*r* 209 412	8 144
1984–85	351 153	127 047	2 065	314.5	*r* 199 245	8 279
1985–86	363 273	98 435	2 125	311.6	189 634	8 413
1986–87	333 695	98 110	Nil	299.3	203 072	8 416

(*a*) Includes butter equivalent of butter oil and from 1965–66 excludes farm production.
(*b*) Source: Tasmanian Department of Agriculture up to 1978–79; Australian Dairy Corporation from 1979–80.
(*c*) Includes non-factory production. From July 1970 all weights are on a bone-in basis; earlier figures include an element of unconverted bone-out weights.
(*d*) Includes hardwood and softwood.
(*e*) Mainly output of Hydro-Electric Commission.

(NOTE: Details of production of a number of important articles cannot be published because of confidentiality.)

(Chapter 16) **Manufacturing, 1910–1967–68, Tasmania**

Year	Number of factories at end of year	Employment (a)			Salaries and wages paid (b)	Value of materials used	Value of output (c)	Value of production (d)	Land and buildings	Plant and machinery
		Males	Females	Persons	($'000)	($'000)	($'000)	($'000)	($'000)	($'000)
1910	635	8 277	1 703	9 980	n.a.	n.a.	n.a.	n.a.	2 044	2 092
1915	589	7 161	1 259	8 420	1 567	4 387	8 431	3 823	2 265	2 457
1920	616	8 746	1 479	10 225	2 960	8 469	14 304	5 525	1 963	3 863
1924–25	675	9 016	1 982	10 998	3 776	6 885	15 685	7 251	4 209	13 457
1929–30	845	8 547	2 273	10 820	4 056	8 025	17 121	7 124	5 994	13 894
1934–35	926	8 321	2 234	10 555	3 204	6 260	14 446	6 316	5 390	12 138
1939–40	980	11 754	2 916	14 670	5 372	10 821	25 987	12 506	7 551	13 576
1940–41	1 002	12 341	3 498	15 839	6 119	12 377	27 735	12 584	8 474	15 098
1945–46	1 082	15 105	4 130	19 235	10 013	20 616	44 239	18 391	10 609	16 461
1946–47	1 169	16 186	3 751	19 937	11 276	22 650	49 139	21 335	11 356	17 000
1947–48	1 225	17 208	3 965	21 173	13 731	27 311	57 569	24 489	12 543	19 832
1948–49	1 346	18 508	4 094	22 602	16 913	34 319	73 314	32 149	14 670	24 507
1949–50	1 456	19 302	4 204	23 506	19 293	43 468	90 160	38 671	17 299	27 456
1950–51	1 486	19 454	4 373	23 827	23 475	58 290	117 249	49 229	20 701	34 312
1951–52	1 512	19 934	4 093	24 027	29 407	71 804	143 853	59 588	24 999	41 181
1952–53	1 504	19 621	3 874	23 495	31 953	67 333	142 007	60 997	29 925	45 240
1953–54	1 545	20 249	4 340	24 589	34 763	74 851	155 822	66 129	53 993	54 984
1954–55	1 597	21 045	4 407	25 452	37 727	84 930	177 202	76 228	59 206	59 758
1955–56	1 594	22 128	4 934	27 062	43 196	95 882	207 558	91 862	93 158	80 849
1956–57	1 595	22 482	5 188	27 670	47 273	101 274	220 780	97 365	112 946	89 672
1957–58	1 655	23 081	5 003	28 084	50 641	100 582	227 651	103 660	118 906	93 719
1958–59	1 666	23 504	4 920	28 424	51 656	103 093	236 587	108 602	123 660	96 451
1959–60	1 683	24 408	5 254	29 662	57 573	119 822	268 050	120 392	144 024	107 315
1960–61	1 766	24 811	5 347	30 158	60 659	122 508	275 902	124 892	147 099	112 632
1961–62	1 760	24 742	5 328	30 070	61 440	126 128	283 547	127 874	159 149	121 589
1962–63	1 764	25 453	5 302	30 755	64 837	131 100	303 920	142 033	163 919	138 159
1963–64	1 746	26 221	5 612	31 833	70 582	154 613	341 065	152 571	168 403	141 651
1964–65	1 805	26 768	5 812	32 580	76 515	175 920	381 549	167 251	209 010	155 336
1965–66	1 792	28 041	6 274	34 315	82 963	188 678	404 581	175 606	211 923	158 672
1966–67	1 771	28 364	6 515	34 879	90 756	201 027	437 964	194 571	233 983	169 159
1967–68	1 797	28 550	6 628	35 178	96 236	203 084	445 076	198 019	263 364	184 683

(*a*) Commencing with 1927–28, the number of persons employed is the average over the *whole* year; prior to the date the number represents the average over the period of operation.
(*b*) Excludes amounts drawn by working proprietors.
(*c*) Value of goods manufactured and work done.
(*d*) Value of output less recorded costs of manufacture other than labour.

(Chapter 16) **Manufacturing, Tasmania (*a*)**

Year (b)	Establishments operating at 30 June	Employment (average over whole year) (c)			Wages and salaries	Turnover (d)	Purchases, transfer in and selected expenses (e)	Value added (f)	Fixed capital expenditure (g)
		Males	Females	Persons					
	no.	no.	no.	no.	$'000	$'000	$'000	$'000	$'000
1968–69	951	24 892	6 182	31 074	95 065	487 109	301 739	197 464	35 080
1969–70	945	25 371	6 389	31 760	102 104	541 636	317 546	226 083	49 443
1971–72	933	24 856	6 151	31 007	119 411	595 612	359 300	245 068	25 944
1972–73	912	24 668	6 016	30 684	130 703	678 763	394 628	283 420	24 893
1973–74	935	25 203	6 324	31 527	161 386	818 049	494 785	340 250	24 798
1974–75	628	23 699	5 153	28 852	194 883	905 656	558 632	402 255	53 146
1975–76	667	22 827	4 926	27 753	211 327	1 029 579	577 393	456 029	43 936
1976–77	617	23 042	4 724	27 766	246 014	1 199 311	694 445	533 288	34 472
1977–78	599	22 022	4 944	26 966	258 341	1 245 979	742 171	497 979	47 243
1978–79	552	21 386	4 680	26 066	266 099	1 401 463	861 690	549 372	77 116
1979–80	543	21 520	4 638	26 158	298 196	1 656 092	1 045 867	653 770	55 933
1980–81	558	21 942	4 586	26 528	346 551	1 867 080	1 175 515	713 445	60 208
1981–82	555	21 345	4 464	25 809	370 167	1 898 046	1 237 455	713 091	84 417
1982–83	528	19 597	4 488	24 085	387 714	1 968 504	1 260 435	695 135	45 035
1983–84 *r*	558	19 857	4 640	24 497	414 330	2 220 463	1 388 699	837 710	61 219
1984–85	575	19 902	4 592	24 494	442 988	2 422 890	1 548 921	937 933	52 279

(*a*) Details are not comparable with those contained in the table: 'Manufacturing, 1910–1967–68, Tasmania'
(*b*) No census was conducted in 1970–71. From 1974–75 figures exclude details for single establishment enterprises with less than four persons employed.
(*c*) Includes working proprietors and employees at separately located administrative and ancillary units.
(*d*) Turnover *plus* increase (or *less* decrease) in the value of stocks *less* purchases, transfers in and selected expenses.
(*e*) Includes transfers in of goods from other establishments of the enterprise, charges for commission and sub-contract work, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.
(*f*) Comprises sales of goods, transfers out of goods to establishments of the same enterprise, bounties and subsidies on production, all other operating revenue from outside the enterprise and capital work done for own use, rental or lease.
(*g*) Outlay on fixed tangible assets *less* disposals.

(Chapter 17) **Building Approvals, Tasmania**

Year	New houses		Other new dwellings		Total new dwellings		Alterations and additions to dwellings	Other building	Total all building
	No.	Value	No.	Value	No.	Value	Value (a)	Value	Value
		$'000		$'000		$'000	$'000	$'000	$'000
1959–60	2 546	16 134	187	926	2 733	17 060		22 099	39 159
1960–61	2 273	15 190	152	895	2 425	16 085		14 454	30 539
1961–62	2 527	16 486	119	467	2 646	16 953		20 851	37 804
1962–63	2 471	16 542	173	814	2 644	17 356		20 060	37 416
1963–64	2 648	18 845	165	886	2 813	19 731		14 790	34 521
1964–65	2 669	20 209	252	1 413	2 921	21 622		23 250	44 872
1965–66	2 428	19 083	218	1 355	2 646	20 438		28 432	48 870
1966–67	3 218	25 777	227	1 476	3 445	27 253		26 340	53 593
1967–68	3 309	30 083	425	2 522	3 734	32 605	n.a.	39 414	72 019
1968–69	2 694	25 893	438	2 904	3 132	28 797		23 494	52 291
1969–70	2 656	26 631	781	5 545	3 437	32 176		27 358	59 534
1970–71	2 581	26 618	610	4 036	3 191	30 654		37 337	67 991
1971–72	2 484	28 430	909	6 773	3 393	35 203		34 879	70 083
1972–73	3 058	39 454	768	6 393	3 826	45 847		44 574	90 421
1973–74	3 282	51 798	893	8 771	4 175	60 569	797	39 353	100 719
1974–75	2 627	51 460	732	9 678	3 359	61 138	1 163	50 433	112 736
1975–76	3 380	82 908	1 056	18 715	4 436	101 623	2 326	56 441	160 390
1976–77	3 314	89 367	1 088	21 159	4 402	110 526	3 877	86 160	200 562
1977–78	2 778	78 138	911	17 959	3 689	96 097	4 817	86 816	187 729
1978–79	2 834	83 429	810	17 779	3 644	101 208	5 089	77 119	183 416
1979–80	2 511	81 479	804	17 165	3 315	98 644	5 828	91 442	195 912
1980–81	2 327	81 713	873	19 992	3 200	101 705	6 950	73 190	181 845
1981–82	1 989	72 285	741	18 051	2 730	90 336	7 786	90 371	188 493
1982–83	2 057	76 438	670	17 111	2 727	93 549	7 653	62 242	163 444
1983–84	2 918	117 045	769	22 215	3 687	139 260	10 268	80 150	229 678
1984–85	3 415	155 001	955	31 252	4 370	186 253	13 191	141 816	341 260
1985–86	3 020	152 728	1 088	42 025	4 108	194 753	16 337	149 411	360 500
1986–87	2 647	144 937	991	38 085	3 638	183 022	19 513	179 215	381 750

(a) Prior to 1973–74, alterations and additions valued at $10 000 or more to dwellings were included with the number and value of dwellings.

(Chapter 17) **Summary of Dwellings at Census Dates, Tasmania**

Particulars		Date of Census									
		April 1921	June 1933	June 1947	June 1954	June 1961	June 1966	June 1971	June 1976	June 1981	June 1986
Dwellings (including hotels, boarding houses, flats, etc.) —											
Occupied	no.	45 818	52 484	62 484	78 789	91 528	99 366	110 483	122 573	136 269	150 142
Unoccupied	no.	2 934	2 421	2 531	5 288	8 582	10 800	13 302	15 786	17 765	19 470
Total	no.	48 752	54 905	64 835	84 077	99 840	110 166	123 785	138 359	154 034	169 612
Average inmates per occupied dwelling	no.	4.67	4.34	4.11	3.92	3.84	3.74	3.53	3.29	3.07	2.91
Occupied private dwellings according to —											
Class of dwelling —											
Private house (including share) (a)	no.	42 028	48 479	58 937	74 244	83 736	90 131	99 401	100 534	119 573	130 328
Flat (including apartment)	no.	2 404	2 831	2 604	2 534	5 574	7 058	8 417	21 298	16 025	19 130
Other	no.			461	869	888	1 093	1 785			
Total	no.	44 432	51 310	61 462	77 647	90 198	98 282	109 603	121 832	135 598	149 458
Nature of occupancy —											
Owner	no.	16 851	20 404	28 377	38 436	42 896	67 855	73 267	38 852	44 740	58 157
Purchaser by instalments	no.	4 364	3 986	4 140	9 810	19 006			44 432	44 977	47 588
Tenant	no.	19 037	22 734	26 077	26 991	25 938	25 597	30 583	29 638	33 909	36 748
Other methods of occupancy (including not stated)	no.	4 180	4 186	2 868	2 410	2 358	5 000	5 753	8 910	11 972	6 307

(a) Separate house for 1976.

(Chapter 17) Value of Building: Commenced, Completed and Under Construction, Tasmania ($'000)

Year	Building approvals	Building construction								
		Commenced			Completed			Under construction at 30 June		
		New dwellings	Other building	Total all building	New dwellings	Other building	Total all building	New dwellings	Other building	Total all building
1946–47	6 726	3 728	1 708	5 436	2 308	526	2 834	3 614	1 904	5 518
1947–48	8 358	5 256	1 958	7 214	3 492	1 066	4 558	5 532	2 760	8 292
1948–49	11 742	7 960	2782	10 742	6 042	1 578	7 620	7 670	4 074	11 744
1949–50	16 740	11 702	5 056	16 758	8 426	2 258	10 684	11 368	6 612	17 980
1950–51	21 694	15 000	5 672	20 672	13 508	3 298	16 806	14 250	10 106	24 356
1951–52	20 042	15 360	6 766	22 126	16 414	4 608	21 022	14 504	13 036	27 540
1952–53	15 984	10 664	2 558	13 222	15 252	6 078	21 330	10 608	10 380	20 988
1953–54	21 646	13 552	4 896	18 448	13 520	5 864	19 384	11 532	12 032	23 564
1954–55	25 612	15 244	6 428	21 672	13 092	8 206	21 298	13 992	10 806	24 798
1955–56	25 074	13 842	5 936	19 778	15 138	10 458	25 596	13 230	6 498	19 728
1956–57	30 964	15 138	13 138	28 276	16 434	8 784	25 218	12 420	11 750	24 170
1957–58	27 232	14 980	10 486	25 466	15 844	9 836	25 680	11 866	12 026	23 892
1958–59	27 592	16 662	12 156	28 818	15 986	10 914	26 900	12 742	13 364	26 106
1959–60	39 159	15 834	20 652	36 486	16 570	15 036	31 606	12 026	19 156	31 182
1960–61	30 539	15 936	12 344	28 280	17 206	16 822	34 028	10 912	15 016	25 928
1961–62	37 804	17 026	18 360	35 386	16 630	16 824	33 454	11 136	16 640	27 776
1962–63	37 416	16 668	17 944	34 612	16 892	17 240	34 128	10 912	17 500	28 412
1963–64	34 521	18 944	15 720	34 664	18 070	15 906	33 976	11 764	17 330	29 094
1964–65	44 872	20 922	21 118	42 040	20 060	17 684	37 744	12 628	20 738	33 366
1965–66	48 870	19 200	24 589	43 789	19 010	20 670	39 680	12 761	24 651	37 412
1966–67	53 593	25 869	36 208	62 070	23 230	24 986	48 218	15 394	35 875	51 269
1967–68	72 021	29 791	33 359	63 153	30 078	31 805	61 881	15 095	37 411	52 504
1968–69	52 291	28 011	28 191	56 202	28 142	28 807	56 947	14 634	37 262	51 896
1969–70	59 534	32 326	29 805	62 131	32 170	34 282	66 452	14 675	36 347	51 022
1970–71	67 991	32 233	37 956	70 189	29 275	30 409	59 684	17 906	45 559	63 465
1971–72	70 083	32 219	32 100	64 319	31 699	38 018	69 717	19 262	42 374	61 636
1972–73	90 421	43 328	47 279	90 607	36 190	41 915	78 105	27 418	49 104	76 522
1973–74 (*a*)	100 719	57 579	49 546	107 125	48 259	40 687	88 946	38 416	58 947	97 363
1974–75	112 736	59 641	53 539	113 180	58 182	41 311	99 493	42 436	73 883	116 319
1975–76	160 390	94 481	62 360	156 840	77 130	67 979	145 109	65 067	75 427	140 494
1976–77	200 562	100 636	77 938	178 574	102 888	71 674	174 563	67 915	85 758	153 674
1977–78	187 729	95 941	96 314	192 255	105 701	87 319	193 019	61 583	99 732	161 316
1978–79	183 416	105 265	106 141	211 406	99 460	74 968	174 427	73 161	133 694	206 854
1979–80	195 912	95 771	82 821	178 591	106 452	111 180	217 633	62 278	117 250	179 529
1980–81	181 845	109 700	99 727	209 400	111 600	122 815	234 400	56 800	109 916	166 700
1981–82	188 493	88 800	92 800	181 600	93 500	98 000	191 400	48 500	106 100	154 500
1982–83	163 444	80 900	78 500	159 500	79 000	111 100	190 100	49 500	71 300	120 700
1983–84	229 678	122 000	80 000	202 000	107 300	105 500	212 900	63 600	46 400	110 000
1984–85	341 260	171 700	130 200	301 900	*r* 150 300	*r* 85 000	*r* 235 200	85 600	96 600	182 100
1985–86	360 500	182 600	196 900	379 600	166 000	118 200	284 200	103 000	178 400	281 400
1986–87	381 750	170 600	198 800	369 500	166 300	174 100	340 500	111 900	205 600	317 600

(*a*) Alterations and additions to dwellings valued at $10 000 and over are included with the value of dwellings up to 1972–73 but excluded thereafter: from 1973–74 the value of alterations and additions to dwellings valued at $10 000 and over is included with 'other builidng'.

(Chapter 18) Postal Services, Tasmania

Year	Letters and postcards	Mail posted in Tasmania or received from overseas		Security Services (Registered articles)
		Newspapers and packets	Parcels	
	'000	'000	'000	'000
1929–30	39 956	7 128	198	307
1939–40	33 874	5 525	132	314
1949–50	50 038	8 440	368	674
1959–60	43 020	9 629	233	456
1960–61	43 242	9 432	231	404
1961–62	42 603	9 714	242	390
1962–63	45 202	9 183	237	379
1963–64	47 452	9 340	232	371
1964–65	49 108	9 549	263	371
1965–66	51 710	10 309	288	375
1966–67	55 594	10 531	302	379
1967–68	55 273	10 141	303	349
1968–69	56 516	9 425	282	325
1969–70	58 824	8 953	300	312
1970–71	57 916	8 640	353	313
1971–72	54 780	6 773	352	268
1972–73	63 187		358	228
1973–74	63 272		289	203
1974–75	59 644		308	193
1975–76	44 829	5 528	220	132
1976–77	45 406	5 627	310	126
1977–78	48 690	7 569	342	124
1978–79	51 828	12 252	379	121
1979–80	53 902	10 962	444	119
1980–81	57 204	6 628	544	127
1981–82	51 503	5 773	543	125
1982–83	49 603	5 986	548	116
1983–84	50 669	6 459	550	108
1984–85	53 684	6 736	629	110
1985–86	53 995	6 511	568	113
1986–87	55 128	7 172	535	093

(Chapter 18) Telecommunications, Radiocommunications, Broadcasting and Television, Tasmania

Year	Telegrams		Telephones			Radiocommunication, broadcasting and television stations		
	Despatched to and received from other countries	Despatched to places within Australia	Telephone exchanges	Telephone services connected at end of period		Radio communication	Broadcasting	Television
				Lines	Instruments			
	'000	'000	no.	'000	'000	no.	no.	no.
1929–30	19	455	360	12	15	20	3	..
1939–40	16	471	357	15	19	25	11	..
1949–50	36	952	370	23	31	198	11	..
1959–60	43	537	391	47	63	882	12	2
1964–65	52	550	365	59	82	2 574	12	4
1965–66	60	582	349	62	86	2 951	12	4
1966–67	53	621	331	65	89	3 561	12	4
1967–68	(a) 21	575	312	67	93	3 856	12	4
1968–69	24	562	288	70	98	4 377	12	4
1969–70	24	542	273	75	105	4 994	12	4
1970–71	36	499	257	78	114	5 499	12	4
1971–72	36	458	238	80	113	5 892	12	5
1972–73	473		230	85	118	6 390	12	5
1973–74	472		224	90	127	6 570	12	5
1974–75	424		212	96	133	7 347	12	5
1975–76	356		206	100	140	7 915	12	5
1976–77	298		198	105	146	8 687	15	5
1977–78	242		197	112	155	(b) 15 612	15	5
1978–79	178		196	118	164	15 008	15	5
1979–80	135		196	125	174	15 383	16	5
1980–81	122		197	133	202	13 746	18	5
1981–82	107		197	139	192	13 413	18	5
1982–83	91		197	145	212	21 204	18	5
1983–84	74		197	151	231	21 609	19	5
1984–85	62		197	162	247	23 262	19	5
1985–86	56		197	169	n.a.	(c) 21 906	20	6
1986–87	44		200	177	n.a.	251 181	21	6

(a) From 1967–68 excludes telegrams received, details of which are no longer available.
(b) Includes licensed Citizens Band Radio Service operators from 1977–78.
(c) Decrease due to change in licensing requirements.

(Chapter 18) Motor Vehicle Registrations, Tasmania (*a*)

Year	*Motor vehicles on the register at end of year*					*New motor vehicles registered during year*			
	Motor cars and station wagons								
	Number ('000)	*Persons per vehicle registered*	*Commercial vehicles ('000)*	*Motor cycles ('000)*	*Total ('000)*	*Motor cars and station wagons*	*Commercial vehicles*	*Motor cycles*	*Total*
1924–25	5.8	36.9	(*b*) 0.8	2.7	9.3				
1925–26	7.1	30.4	1.0	3.0	11.1				
1926–27	8.4	25.1	1.2	3.5	13.1	n.a.	n.a.	n.a.	n.a.
1927–28	9.7	22.0	1.6	3.9	15.2				
1928–29	11.4	19.0	1.9	4.4	17.6				
1929–30	12.5	17.6	(*c*) 2.2	4.8	19.5	1 627	(*c*) 552	939	3 118
1930–31	12.0	18.3	2.2	4.3	18.5				
1931–32	11.3	20.0	2.2	3.7	17.2	n.a.	n.a.	n.a.	n.a.
1932–33	11.6	19.6	2.5	3.7	17.8				
1933–34	12.0	19.0	2.7	3.8	18.5				
1934–35	12.9	17.8	3.0	3.9	19.8	982	422	171	1 575
1935–36	14.0	16.4	3.6	3.9	21.6	n.a.	n.a.	n.a.	n.a.
1936–37	15.1	15.4	4.0	3.6	22.7	1 572	620	281	2 473
1937–38	16.6	14.1	4.5	3.6	24.8	1 802	707	287	2 796
1938–39	17.7	13.4	5.0	3.7	26.4	2 010	700	350	3 060
1939–40	17.6	13.6	5.2	3.4	26.2	1 400	540	176	2 116
1940–41	17.3	13.9	5.5	3.2	26.1	553	359	90	1 002
1941–42	14.2	17.0	5.4	2.2	21.9	127	156	13	296
1942–43	15.8	15.4	5.6	2.5	23.9	69	91	3	163
1943–44	16.7	14.7	6.3	2.6	25.6	29	523	..	552
1944–45	17.1	14.5	7.0	2.8	26.8	26	331	1	358
1945–46	17.4	14.5	7.8	3.2	28.4	43	351	73	467
1946–47	18.5	13.9	9.0	3.6	31.2	741	667	472	1 880
1947–48	19.9	13.1	10.2	4.1	34.2	1 541	1 084	621	3 246
1948–49	22.5	11.7	4.7	38.9	2 611	1 202	812	4 625	
1949–50	25.3	10.9	12.9	4.9	43.2	3 311	1 565	886	5 762
1950–51	28.8	9.9	15.1	5.3	49.2	4 187	2 319	960	7 466
1951–52	32.5	9.1	16.8	5.7	55.1	4 267	2 073	938	7 278
1952–53	35.4	8.6	19.4	5.7	60.5	3 368	1 724	474	5 566
1953–54	40.0	7.7	19.7	5.6	65.4	4 178	1 896	450	7 064
1954–55	44.9	7.0	21.5	5.3	71.7	5 738	2 285	417	8 440
1955–56	48.0	6.6	21.9	4.8	74.7	5 457	2 179	332	7 968
1956–57	51.7	6.3	22.6	4.4	78.6	5 309	1 988	340	7 637
1957–58	55.9	6.0	23.9	4.0	83.8	5 337	1 944	225	7 506
1958–59	59.1	5.7	25.0	3.6	87.7	5 362	2 113	176	7 651
1959–60	63.7	5.4	26.4	3.1	93.2	6 527	2 115	96	8 738
1960–61	68.1	5.1	26.7	2.6	97.4	6 723	2 058	61	8 842
1961–62	72.8	4.9	27.4	2.4	102.6	6 931	1 778	59	8 768
1962–63	77.9	4.6	27.5	1.9	107.3	9 003	1 986	52	11 041
1963–64	84.4	4.3	28.0	1.7	114.1	10 268	2 343	53	12 664
1964–65	91.3	4.0	28.9	1.5	121.7	10 522	2 389	69	12 980
1965–66	96.8	3.8	29.7	1.5	128.0	10 133	2 878	207	13 218
1966–67	101.7	3.7	30.2	1.6	133.5	10 390	2 611	380	13 381
1967–68	107.7	3.5	31.1	2.2	141.0	11 738	2 412	751	14 901
1968–69	113.7	3.4	32.2	2.8	148.7	10 845	2 529	781	14 155
1969–70	118.6	3.3	32.6	3.1	154.3	11 399	2 456	799	14 654
1970–71	124.9	3.1	32.9	3.5	161.3	11 792	2 550	794	15 136
1971–72	130.2	3.0	33.8	3.8	167.8	11 961	2 492	978	15 431
1972–73	135.4	2.9	34.6	4.5	174.5	12 970	2 813	1 343	17 126
1973–74	141.2	2.8	35.3	6.1	182.6	13 674	2 846	2 600	19 120
1974–75	150.3	2.7	36.6	7.4	194.3	16 097	3 980	2 749	22 826
1975–76	156.9	2.6	39.1	6.8	202.8	14 410	3 971	1 831	20 212
1976–77	162.7	2.5	40.5	6.2	209.4	14 520	4 260	1 428	20 208
1977–78	171.9	2.4	41.2	5.0	218.1	13 884	4 170	972	19 026
1978–79	178.8	2.4	42.9	4.8	226.6	13 928	3 401	892	18 221
1979–80	177.2	2.4	47.5	4.7	229.5	13 333	3 454	1 089	17 876
1980–81	183.5	2.3	49.0	4.9	237.4	13 563	3 444	1 278	18 285
1981–82	186.5	2.3	50.5	5.1	242.1	12 210	3 302	1 110	16 622
1982–83	191.0	2.3	52.5	5.8	249.3	11 279	3 209	990	15 478
1983–84	195.0	2.2	54.8	6.1	255.9	13 214	3 791	1 027	18 032
1984–85	*r* 201.7	2.2	*r* 58.3	*r* 6.4	*r* 266.4	13 840	4 731	991	19 562
1985–86	206.2	2.2	60.5	6.5	273.2	12 811	3 969	752	17 532
1986–87	207.0	2.2	61.6	6.3	274.9	9 206	2 667	526	12 399

(*a*) Includes State Government and Commonwealth Government-owned vehicles but excludes those belonging to the Defence Services.
(*b*) Trucks only.
(*c*) From 1929–30 includes trucks, utilities, panel vans and omnibuses.

(Chapter 18) Motor Vehicles on Register and Traffic Accidents, Tasmania

Year	Motor vehicles on the register at end of year (a)		Traffic accidents involving casualties					
			Accidents		Persons killed		Persons injured	
	Number ('000)	Persons per vehicle registered	Number	Per 10 000 vehicles registered (b)	Number	Per 100 000 vehicles registered (b)	Number	Per 10 000 vehicles registered (b)
1959–60	93.2	3.7	743	82	79	8.7	1 004	111
1964–65	121.7	3.0	1 180	100	97	8.2	1 692	143
1965–66	128.0	2.9	1 291	103	88	7.0	1 955	157
1966–67	133.5	2.8	1 356	104	102	7.8	2081	159
1967–68	141.0	2.7	1 268	92	112	8.2	1 990	145
1968–69	148.7	2.6	1 400	97	122	8.4	2 228	154
1969–70	154.3	2.5	1 413	93	122	8.0	2 268	150
1970–71	161.3	2.4	1 396	89	124	7.9	2031	129
1971–72	167.8	2.3	1 371	83	118	7.2	1 984	120
1972–73	174.5	2.3	1 423	83	83	4.8	2052	119
1973–74	182.6	2.2	1 454	81	126	7.0	2046	114
1974–75	194.3	2.1	1 466	77	120	6.3	2061	108
1975–76	202.8	2.0	1 502	74	107	5.3	2 160	107
1976–77	209.4	2.0	1 606	77	103	4.9	2 314	110
1977–78	218.1	1.9	1 674	78	118	5.5	2 402	112
1978–79	226.6	1.9	1 537	69	98	4.4	2 113	95
1979–80	229.5	1.8	1 510	66	77	3.4	2 140	94
1980–81	237.4	1.8	1 634	70	120	5.1	2 186	94
1981–82	242.1	1.8	1 532	64	114	4.8	2 209	92
1982–83 (c)	249.3	1.7	1 114	46	73	3.0	1 524	62
1983–84	255.9	1.7	1 333	52	76	3.0	1 856	73
1984–85	266.4	1.7	1 435	54	85	3.2	1 952	73
1985–86	273.2	1.6	1 514	55	76	2.8	2 152	79
1986–87	274.9	1.6	1 385	50	90	3.3	1 906	69

(a) Includes cars, commercial vehicles, motor cycles and Commonwealth-owned vehicles other than Defence Services vehicles.
(b) Based on average number of motor vehicles (including motor cycles) on the register.
(c) Random breath tests introduced.

(Chapter 18) Metropolitan Transport Trust Passenger Services, Tasmania (a)

Year	Hobart and Launceston services						
	Route kilometres open for traffic	Hobart		Launceston		Revenue (b)	Expenditure (c)
		Vehicle kilometres	Passenger journeys	Vehicle kilometres	Passenger journeys		
		daily average	daily average	daily average	daily average	$'000	$'000
1955–56	121	10 602	50 028	4060	18 006	1 304	1 690
1960–61	198	16 964	49 946	5058	17 462	1 997	2 586
1961–62	203	17 022	48 994	5055	17 217	1 955	2 629
1962–63	208	16 732	48 051	4736	16 279	1 905	2 537
1963–64	222	17 537	47 554	4775	15 731	1 882	2 584
1964–65	224	17 566	45 985	4598	15 183	1 829	2 606
1965–66	243	17 239	43 383	4760	14 767	1 964	2 749
1966–67	248	17 323	42 967	4843	14 728	2 124	3 008
1967–68	259	17 408	41 803	4947	13 953	2 158	3 122
1968–69	286	17 745	40 675	4730	13 365	2 270	3 250
1969–70	290	17 886	39 932	4801	13 018	2 332	3 358
1970–71	290	18 055	40 058	4633	12 521	2 321	3 741
1971–72	291	17 703	37 584	4585	11 708	2 639	3 949
1972–73	308	17 106	36 572	4530	11 397	2 659	4 333
1973–74	314	17 585	38 027	4604	11 988	2 751	5 283
1974–75	364	19 031	40 791	4650	12 055	2 916	8 299
1975–76	357	19 850	40 646	4704	11 969	3 000	8 084
1976–77	358	20 791	39 507	4219	11 283	2 862	8 945
1977–78	365	21 405	39 314	4269	10 767	3 547	10 151
1978–79	366	20 685	34 870	4148	9 552	4 186	10 672
1979–80	368	20 333	34 384	4345	9 515	4 183	11 300
1980–81	r 344	21 551	34 161	4306	9 368	4 896	13 458
1981–82 (d)	r 352	20 922	28 803	4175	7 836	5 625	14 524
1982–83	r 357	20 871	29 107	4015	7 762	5 710	15 453
1983–84	r 378	20 630	29 589	4002	7 781	5 641	16 715
1984–85	381	20 991	29 512	3999	7 830	5 646	17 573
1985–86	384	21 261	29 679	4069	8 033	6 664	19 880
1986–87	387	21 221	28 770	4106	7 781	7 806	21 387

(a) Includes tram, omnibus and trolley-bus services originally under municipal control but taken over by Metropolitan Transport Trust on 1.7.55. Trams ceased operating: Hobart 21.10.60; Launceston 13.12.52.
(b) Prior to 1955–56 includes government grants: see note (a) above
(c) Includes interest, redemption and depreciation.
(d) The method used for calculating passengers changed after a change in ticketing procedures revealed inaccuracies.

(Chapter 19) **Consumer Price Index Numbers, Hobart (a)**

Year	Food	Clothing	Housing	Household equipment and operation	Transport ation	Tobacco and alcohol	Health and personal care	Recreation and education	All groups	
									Index no.	Increase per cent (b)
1949–50	13.2	17.6	12.1						14.8	6.5
1954–55	23.9	26.5	18.4						24.0	—
1959–60	26.5	28.8	24.6						27.6	1.8
1960–61	29.5	29.2	26.0	n.a.	n.a.	n.a.	n.a.	n.a.	29.1	5.4
1961–62	28.8	29.6	27.1						29.3	0.7
1962–63	28.4	29.8	28.0						29.3	—
1963–64	28.4	29.9	28.8						29.6	1.0
1964–65	30.0	30.3	30.0						30.5	3.0
1965–66	31.6	30.7	30.8						31.6	3.6
1966–67	32.0	31.3	31.7	34.9	31.1	32.2			32.3	2.2
1967–68	34.1	32.0	32.9	36.2	32.4	32.9	n.a.		33.7	4.3
1968–69	33.6	32.7	34.4	37.0	33.6	33.8			34.2	1.5
1969–70	34.0	33.8	35.7	37.5	34.6	34.5	29.1		35.0	2.3
1970–71	35.0	35.0	37.2	38.7	36.1	37.2	29.3		36.3	3.7
1971–72	36.1	37.1	39.4	41.7	39.4	40.1	34.0		38.7	6.6
1972–73	38.3	39.3	41.8	43.2	41.1	43.4	35.7		40.9	5.7
1973–74	45.2	44.5	46.6	46.4	43.4	49.2	40.0		46.0	12.5
1974–75	50.7	53.7	57.4	54.6	51.4	54.5	49.4	n.a.	53.8	17.0
1975–76	56.7	62.8	68.6	64.2	61.2	66.4	39.3		61.3	13.9
1976–77	64.4	72.7	77.7	70.5	68.6	71.5	71.0		70.2	14.5
1977–78	71.2	80.4	83.9	76.8	75.1	74.7	85.8		77.1	9.8
1978–79	80.3	86.7	88.2	82.4	79.7	86.4	82.9		83.1	7.8
1979–80	91.6	93.1	93.1	89.8	90.6	93.1	90.7		91.6	10.2
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	9.2
1981–82	108.7	106.4	107.4	110.0	112.8	109.1	120.5		110.0	10.0
1982–83	118.6	112.8	116.3	121.7	126.8	124.0	143.0	109.4	121.8	10.7
1983–84	128.2	119.5	123.9	132.8	136.7	137.8	131.5	117.3	129.9	6.7
1984–85 *r*	136.1	127.6	135.2	139.5	143.9	151.3	110.7	122.3	136.1	4.8
1985–86	145.8	138.3	149.0	148.8	157.8	167.0	117.9	135.2	147.9	8.7
1986–87	158.9	151.9	157.8	160.9	176.9	188.6	138.4	146.3	162.5	9.9

(*a*) Base of each index is year 1980–81 = 100.0 except 'Recreation and education' which is March quarter 1981–82.
(*b*) Over previous year.

(Chapter 19) **Value of Retail Sales by Commodity Groups, Tasmania ($ Million)**

Year	Groceries	Fresh meat	Other food (a)	Beer, wine, spirits (b)	Clothing, drapery, footwear	Domestic hardware (c)	Electrical goods (d)	Furniture, floor coverings	Other goods (e)	Total (excl. motor vehicles, etc.)
1952–53 (*f*)	17.3	9.1	11.9	10.7	25.7	3.1	4.6	4.9	16.3	103.6
1956–57 (*f*)	23.4	11.1	15.1	14.8	30.4	3.3	6.3	6.4	20.3	131.1
1961–62 (*f*)	28.6	13.9	20.0	17.0	35.3	4.1	10.7	7.2	29.3	166.1
1962–63	29.3	14.9	21.4	16.9	36.0	4.4	11.7	7.8	30.5	172.9
1963–64	31.6	15.5	20.6	18.5	38.4	4.4	11.5	7.9	31.8	180.2
1964–65	33.6	17.1	21.9	18.9	40.6	4.4	11.3	8.5	34.7	191.0
1965–66	35.2	17.8	22.7	20.3	41.6	4.5	11.2	8.7	36.3	198.3
1966–67	36.5	19.4	24.2	23.3	45.5	5.1	11.7	10.1	39.2	215.0
1967–68	37.3	19.9	26.1	25.0	48.9	5.5	12.4	11.2	41.6	227.9
1968–69 (*f*)	48.7	20.7	23.1	30.9	49.5	8.8	13.4	12.6	49.9	257.6
1969–70	41.7	21.0	30.7	28.7	62.2	6.1	13.3	12.9	49.4	256.0
1970–71	45.2	21.3	32.6	30.7	55.6	6.7	13.6	13.5	52.9	272.1
1971–72	50.0	22.2	33.9	32.4	59.7	7.5	15.4	14.4	55.8	291.3
1972–73	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	319.5
1973–74 (*f*)	63.8	26.2	35.8	47.8	76.1	14.4	24.5	21.4	64.5	374.5
1974–75	76.7	31.3	47.2	61.7	100.3	17.1	36.1	28.9	86.1	485.4
1975–76	87.3	31.2	49.7	68.8	101.6	22.1	48.3	31.7	91.6	532.3
1976–77	110.4	35.7	58.0	77.5	117.3	24.5	56.4	34.6	103.6	618.0
1977–78	120.8	37.6	64.0	91.6	133.1	29.0	53.1	37.8	118.4	685.4
1978–79	132.0	48.2	72.8	100.5	141.2	29.5	53.2	38.8	134.3	750.5
1979–80 (*f*)	168.0	55.9	71.9	105.6	151.0	28.2	53.0	39.0	144.3	816.9
1980–81	171.5	55.2	99.0	114.0	154.6	35.5	54.1	39.9	161.9	885.7
1981–82	195.1	60.3	106.8	122.3	166.6	38.8	57.0	42.3	178.9	968.1
1982–83	234.8	63.6	91.4	119.5	186.6	39.5	69.0	41.5	184.4	1 030.5
1983–84	276.1	73.4	99.7	129.7	198.9	46.2	78.6	49.7	202.3	1 154.6
1984–85	324.4	76.5	108.6	153.5	221.8	44.8	78.2	58.4	229.5	1 296.0
1985–86	361.3	79.9	126.1	171.5	216.0	51.6	86.8	56.6	249.0	1 399.0

(*a*) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, etc., but excludes some delivered milk and bread.
(*b*) Excludes sales from licensed clubs up to 1982–83.
(*c*) Excludes basic building materials (e.g. timber, roofing tiles, etc.), builders' hardware and supplies.
(*d*) Includes radios, televisions and accessories, musical instruments, domestic refrigerators, etc.
(*e*) Includes tobacco, cigarettes, newspapers, books, stationery, chemists' goods, jewellery, etc.
(*f*) Census figures.

(Chapter 19) Value of Trade by Sea and Air and Vessels Entered and Cleared, Tasmanian Ports

Year	Imports				Exports				Vessels entered Tasmanian ports	
	Overseas	Interstate			Overseas (b)	Interstate (b)				
	By sea and air	By sea (a)	By air	Total (a)	By sea and air	By sea	By air	Total	Overseas and interstate (c)	
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	no.	'000 net tons
1839	n.a.	n.a.		510	n.a.	n.a.		292	101	27
1840	n.a.	n.a.		1 976	n.a.	n.a.		1 734	492	85
1850	n.a.	n.a.		1 318	n.a.	n.a.		1 288	674	104
1860	1 686	450		2 136	1 544	380		1 924	806	116
1870	698	888		1 586	562	736		1 298	613	106
1880	738	2 000		2 738	1 568	1 456		3 024	654	205
1890	1 594	2 202		3 796	792	2 182		2 974	746	476
1900	1 402	2 746		4 148	3 078	2 144		5 222	741	619
1910	1 662	(d)		n.a.	1 040	(d)		n.a.	979	1 211
1919–20	1 626	(d)		n.a.	4 022	(d)		n.a.	841	632
1929–30	3 668	16 028		19 696	4 978	13 198		18 176	1 076	1 390
1930–31	1 582	12 878		14 460	4 214	9 754		13 968	992	1 319
1934–35	1 476	14 452	n.a.	15 928	4 318	11 844	n.a.	16 162	1 128	1 610
1935–36	2 498	17 134		19 632	5 502	13 116		18 618	1 191	1 977
1936–37	2 586	18 858		21 444	6 822	14 376		21 198	1 317	2 093
1937–38	3 858	19 854		23 712	5 774	16 500		22 274	1 377	2 202
1938–39	2 838	20 166		23 004	6 796	17 670		24 466	1 384	2 231
1939–40	3 188	21 780		24 968	4 852	20 954		25 806	1 243	1 512
1940–41	2 364	21 876		24 240	3 120	24 052		27 172	1 147	1 264
1941–42	1 918	24 276		26 194	3 746	28 566		32 312	1 031	1 030
1942–43	2 300	26 236		28 536	1 770	30 680		32 450	873	760
1943–44	2 384	26 162		28 546	2 298	35 288		37 586	804	796
1944–45	1 664	27 796		29 460	5 062	36 708		41 770	760	732
1945–46	2 614	29 400		32 014	7 224	33 040		40 264	728	833
1946–47	3 626	37 810		41 436	10 162	32 932		43 094	751	957
1947–48	8 564	44 000		52 564	18 566	35 066		53 632	787	1 106
1948–49	12 512	46 674		59 186	24 980	37 064		62 044	805	1 125
1949–50	18 704	51 218	(e) 10 670	80 592	29 936	42 672	(e) 3 996	76 604	862	1 183
1950–51	25 058	60 636	18 326	104 020	48 514	53 740	6 392	108 646	905	1 279
1951–52	41 422	76 024	20 474	137 920	37 024	71 684	6 018	114 726	902	1 323
1952–53	26 632	76 658	19 936	123 226	43 696	72 804	11 568	128 068	1 012	1 480
1953–54	26 098	87 438	22 164	135 700	35 466	81 488	13 580	130 534	1 060	1 508
1954–55	30 258	89 958	19 148	139 364	37 524	85 376	14 494	137 394	1 081	1 620
1955–56	24 884	99 608	21 166	145 658	40 608	100 630	18 762	160 000	1 030	1 586
1956–57	27 764	105 788	20 020	153 572	45 004	108 654	18 112	171 770	1 161	1 737
1957–58	25 466	113 636	19 122	158 224	44 506	109 652	18 354	172 512	1 241	1 872
1958–59	26 374	121 138	19 718	167 230	43 932	114 424	17 584	175 940	1 257	1 966
1959–60	27 606	130 014	19 210	176 830	47 730	137 530	20 818	206 078	1 308	2 287
1960–61	37 208	141 086	19 356	197 650	42 588	143 036	21 944	207 568	1 354	2 546
1961–62	26 788	141 776	18 000	186 564	57 196	140 794	23 298	221 288	1 533	3 042
1962–63	35 746	150 620	18 158	204 524	66 792	146 454	21 602	234 848	1 614	3 474
1963–64	35 032	167 964	19 840	222 836	73 318	173 590	23 424	275 332	1 508	3 346
1964–65	35 717	170 963	20 819	227 449	87 315	193 371	25 770	306 456	1 472	3 412
1965–66	43 585	192 732	21 123	257 441	92 007	212 785	25 575	330 367	(f) 1 645	(f) 3 887
1966–67	51 376	209 456	20 311	281 143	88 834	224 975	25 680	339 490	1 684	4 085
1967–68	45 024	220 065	20 590	285 679	76 888	233 694	26 941	337 524	1 676	4 102
1968–69	37 509	241 398	21 051	299 958	102 061	265 476	25 825	393 362	1 795	4 645
1969–70	46 998	257 441	20 551	324 989	143 470	286 083	26 287	455 840	1 759	5 574
1970–71	45 719	269 022	19 777	334 519	143 198	277 669	27 103	447 970	1 639	5 338
1971–72	39 749	281 576	20 622	341 947	178 950	302 608	29 374	510 932	1 754	5 937
1972–73	45 045	289 862	21 238	356 145	218 712	320 910	30 626	570 247	1 788	7 239
1973–74	69 277	357 805	24 760	451 843	259 745	404 382	34 566	698 692	1 631	7 225
1974–75	100 616	402 081	26 850	529 547	226 154	379 933	31 699	637 786	1 611	6 820
1975–76	76 262	503 497	27 882	607 641	250 580	441 391	36 280	728 251	1 536	6 733
1976–77	94 622	564 231	30 909	689 762	338 657	485 850	35 160	859 667	1 592	7 258
1977–78	115 778	594 793	39 388	749 960	381 942	594 441	38 206	1 014 589	1 528	6 992
1978–79	140 652	621 548	74 578	836 829	513 286	627 186	39 727	1 180 199	n.a.	n.a.
1979–80	179 780	935 584	53 481	1 168 845	646 827	772 531	32 141	1 451 499	n.a.	n.a.
1980–81	172 456	973 685	60 922	1 207 063	658 013	837 042	45 171	1 540 226	n.a.	n.a.
1981–82	166 032	1 031 330	61 187	1 258 548	647 617	879 421	47 525	1 574 562	n.a.	n.a.
1982–83	179 819	1 084 743	74 552	1 339 113	773 133	904 983	50 833	1 728 949	n.a.	n.a.
1983–84	202 786	1 189 170	69 735	1 461 691	774 308	1 075 077	57 768	1 907 153	n.a.	n.a.
1984–85	389 613	1 414 304	91 352	1 895 269	841 312	1 184 681	67 084	2 093 077	n.a.	n.a.
1985–86	299 398	(g) n.a.	(g) n.a.	(g) n.a.	900 011	1 182 102	74 755	2 156 868	n.a.	n.a.

(a) Data for 1979–80 onwards are not directly comparable with data for previous years because of revisions to estimating procedures to take account of inadequate documentation available for interstate imports by sea.
(b) Data for 1978–79 onwards are not directly comparable with data for previous years. From 1 July 1978 overseas export figures relate to *all* goods leaving Tasmania for overseas countries. Prior to that date export figures relate to only goods leaving Tasmania for overseas countries for which documents had been lodged with customs in Tasmania.
(c) In this section each vessel is recorded as an entry at the first Tasmanian port of call only; intrastate movements are excluded.
(d) Collection discontinued until 1922–23.
(e) Not collected before 1949–50.
(f) From 1966–67 not comparable with previous years; details are now confined to vessels of over 200 registered net tons engaged solely in trade.
(g) Figures no longer available, due to discontinuation of the Interstate Imports Collection.

(Chapter 19) Overseas and Interstate Exports of Selected Commodities, Tasmania

Year	Sheep skins (with and without wool)		Textile yarn and fabrics	Refined zinc		Ores and concentrates	Timber (dressed and undressed)	
	Quantity	Value	Value	Quantity	Value	Value	Quantity	Value
	tonnes	$'000	$'000	tonnes	$'000	$'000	m^3	$'000
1945–46	1 890	326	4 599	75 454	4 214	1 668	73 206	1 132
1950–51	1 014	1 688	9 266	80 836	15 054	5 704	135 668	3 230
1955–56	1 873	1 356	14 674	100 611	19 888	10 836	140 938	6 570
1956–57	2 122	1 796	15 766	105 314	19 662	10 700	146 502	6 874
1957–58	2 138	1 674	16 112	105 541	18 190	8 088	132 242	4 616
1958–59	2 565	1 288	14 166	116 271	20 054	4 824	153 378	6 844
1959–60	3 216	2 078	17 524	115 680	22 922	5 952	177 931	8 952
1960–61	3 071	1 786	19 188	109 664	21 020	6 760	149 657	9 554
1961–62	3 050	1 892	21 278	133 012	23 680	6 030	134 033	8 588
1962–63	2 885	1 904	19 842	136 302	23 778	6 338	142 979	9 858
1963–64	3 359	2 844	21 918	134 201	27 910	9 102	168 480	11 176
1964–65	2 676	1 953	24 139	141 263	37 327	9 570	189 832	12 811
1965–66	3 268	2 465	24 077	137 257	38 331	11 302	174 297	12 145
1966–67	3 402	2 456	24 102	155 273	41 249	12 560	187 474	13 672
1967–68	2 722	1 369	25 487	120 312	33 106	17 816	183 817	13 492
1968–69	3 988	2 148	27 563	139 479	34 006	44 018	194 936	15 329
1969–70	3 236	1 790	27 784	163 847	42 625	63 478	207 242	16 238
1970–71	3 710	1 684	28 425	142 755	38 163	81 604	200 583	17 201
1971–72	3 765	1 799	29 938	194 259	55 149	88 777	202 331	17 385
1972–73	3 618	3 280	31 680	208 349	63 707	87 543	224 828	27 970
1973–74	2 303	2 926	41 174	190 293	77 143	94 381	270 248	22 556
1974–75	2 816	2 258	31 454	139 253	74 298	91 240	213 428	30 636
1975–76	2 943	2 413	41 656	138 243	74 926	92 588	238 440	25 867
1976–77	2 334	2 765	35 811	162 001	98 318	144 947	313 227	37 083
1977–78	2 565	3 565	33 285	167 870	87 129	164 014	260 738	38 282
1978–79	2 504	3 708	43 815	214 242	122 263	202 415	238 145	38 609
1979–80	2 683	5 417	37 184	185 327	127 264	248 942	291 453	88 238
1980–81	2 330	3 231	45 047	194 115	135 276	n.p.	265 488	85 254
1981–82	2 713	3 395	46 095	199 774	162 700	n.p.	255 366	82 206
1982–83	2 239	2 841	50 073	203 759	164 424	n.p.	267 441	70 031
1983–84	2 557	3 629	52 620	199 820	201 478	n.p.	234 789	84 958
1984–85	2 615	4 718	57 917	198 988	233 810	n.p.	228 837	91 22
1985–86	3 592	8 065	56 835	187 518	197 594	n.p.	224 432	97 470

Year	Butter (incl. butter oil)		Fresh fruit apples and pears		Meat		Cheese		Wool, greasy (a)	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	tonnes	$'000	tonnes	$'000	tonnes	$'000	tonnes	$'000	tonnes	$'000
1945–46	1 293	406	66 820	1 894	186	34	612	112	4 113	1 438
1950–51	1 958	1 173	64 841	6 828	915	302	63	17	5 446	18 688
1955–56	4 988	3 463	92 569	11 498	2 470	1 076	36	23	8 387	11 140
1956–57	6 101	3 452	58 836	7 936	2 074	883	102	73	9 392	16 198
1957–58	5 939	3 420	96 260	14 664	2 996	1 190	101	45	10 731	14 260
1958–59	7 065	4 828	87 781	11 338	5 469	2 415	69	51	11 415	12 106
1959–60	7 864	5 390	80 683	9 490	9 225	3 801	90	64	12 689	15 254
1960–61	5 419	3 298	92 730	11 226	6 896	3 212	60	47	11 068	12 560
1961–62	7 572	3 942	122 417	15 572	7 754	3 250	121	50	12 341	14 206
1962–63	8 597	4 368	108 438	17 508	9 933	4 737	578	269	11 919	15 338
1963–64	8 315	4 372	135 205	19 454	11 018	5 505	895	328	11 378	17 604
1964–65	10 374	5 914	99 410	14 260	12 881	6 645	1 707	761	13 756	16 593
1965–66	8 878	5 214	134 482	20 651	12 749	7 038	2 887	1 493	15 442	20 155
1966–67	9 140	5 259	96 085	11 872	13 727	7 939	3 530	1 642	16 238	20 373
1967–68	8 992	5 107	115 873	14 647	11 345	7 042	4 190	1 854	13 994	15 041
1968–69	9 243	5 129	96 242	13 154	12 910	7 989	1 930	884	15 798	18 592
1969–70	12 611	6 950	109 382	14 905	17 084	11 774	7 267	2 957	16 512	17 821
1970–71	10 664	5 954	96 670	13 474	15 755	10 706	6 259	2 589	17 145	14 350
1971–72	9 829	8 067	74 848	11 092	21 463	14 161	6 816	3 875	20 413	17 180
1972–73	7 437	6 104	84 066	11 566	23 061	20 368	6 656	4 085	17 735	34 579
1973–74	8 269	6 441	92 116	16 458	22 167	22 507	7 730	5 930	16 963	38 319
1974–75	5 012	4 460	57 473	10 261	18 456	12 237	10 386	7 922	15 947	26 640
1975–76	9 720	7 527	47 114	8 756	20 883	17 192	9 026	7 633	17 435	31 232
1976–77	4 363	3 851	24 847	5 732	22 951	20 281	14 552	12 317	16 204	33 685
1977–78	6 248	5 941	42 257	11 092	20 984	21 557	15 222	14 409	16 390	36 503
1978–79	2 561	3 146	40 405	11 794	24 569	37 240	16 516	18 247	16 306	38 756
1979–80	2 871	4 343	45 467	13 826	21 104	41 670	12 188	17 127	13 213	36 630
1980–81	1 510	2 703	39 932	12 467	19 718	35 890	13 302	22 414	16 356	48 422
1981–82	413	867	49 941	19 300	23 688	37 544	13 782	25 827	15 698	48 000
1982–83	1 265	3 725	39 184	22 507	30 392	53 285	11 029	23 410	15 293	48 161
1983–84	2 303	5 384	46 543	21 594	17 432	33 667	10 001	21 235	16 199	55 513
1984–85	2 692	6 552	37 662	23 729	14 164	30 249	11 750	26 227	17 129	66 856
1985–86	2 369	7 827	42 667	33 084	16 356	37 697	11 064	27 202	17 550	69 853

(*a*) Excludes greasy wool on exported skins.

(Chapter 19)

Average Retail Prices *(a)* of Selected Items of Foodstuffs: Hobart
(Cents)

Year	Bread *(b)*	Tea	Sugar	Potatoes	Butter *(factory)*	Eggs *1 doz*	Bacon rashers	Beef rib without bone	Silver-side *(corned)* *(c)*	Lamb *(leg)* *(c)*	Lamb chops *(loin)* *(c)*	Pork *(leg)*
	680 g	*250 g*	*2 kg*	*1 kg*	*500 g*	*55 g*	*250 g*	*1 kg*	*1 kg*	*1 kg*	*1 kg*	*1 kg*
1901	2.3	6.8	9.3	1.4	12.5	10.6	9.3	11.2	9.3	9.0	10.4	11.7
1906	2.4	6.8	9.3	2.2	11.6	12.9	7.9	11.7	9.3	9.7	10.6	11.2
1911	2.6	6.8	9.7	4.7	12.1	12.1	11.9	11.7	9.3	8.6	10.6	11.2
1916	3.2	7.9	12.8	2.1	17.5	14.4	15.5	41.4	16.8	18.1	19.4	21.4
1921	5.4	9.6	22.0	1.9	23.7	18.8	19.4	22.0	18.1	17.6	20.1	28.7
1926	4.6	12.0	16.3	3.7	21.2	16.2	16.4	20.3	15.7	17.6	20.7	24.0
1931	3.4	12.8	16.8	1.9	17.1	12.0	13.0	16.5	13.0	10.8	14.8	17.9
1936	3.7	12.6	17.9	2.4	15.0	14.9	11.1	15.0	14.6	15.4	16.8	18.1
1941	4.6	16.8	17.9	2.4	18.4	15.9	16.0	19.8	16.5	15.9	17.2	23.1
1946	4.6	12.5	17.9	2.2	19.3	20.5	19.3	24.7	20.1	21.2	21.2	26.0
1951	7.8	21.3	21.2	7.6	27.9	40.8	21.8	42.3	38.1	42.1	40.1	67.2
1956	12.4	40.3	36.6	20.5	51.0	54.1	34.6	73.4	55.6	55.6	43.9	106.3
1961	14.5	38.3	42.3	20.2	52.4	57.1	39.5	98.3	85.8	56.2	45.9	119.5
1962	14.9	37.1	42.3	12.7	52.6	56.1	38.5	89.7	74.5	51.8	39.7	113.1
1963	15.2	36.5	42.3	9.3	53.2	57.6	39.5	95.2	76.9	54.7	41.0	123.5
1964	15.3	36.3	42.1	14.8	53.9	56.1	42.8	98.8	79.6	58.6	47.6	130.1
1965	15.7	36.3	41.8	20.5	54.7	60.2	49.6	111.3	87.3	65.7	55.8	136.5
1966	17.0	36.5	41.8	11.3	56.7	63.0	52.7	119.0	94.6	69.2	57.5	140.2
1967	18.0	36.6	46.0	15.5	57.3	65.7	54.9	125.9	100.5	71.4	62.2	145.1
1968	19.1	36.4	49.0	15.2	57.3	62.2	56.3	122.1	138.9	108.5	111.8	149.5
1969	20.1	35.2	49.2	13.4	59.7	68.3	54.6	116.0	135.8	106.3	108.0	147.5
1970	21.3	33.9	49.0	14.1	60.6	67.7	55.6	122.6	138.9	197.6	109.3	147.5
1971	23.5	35.3	48.0	14.5	62.0	64.4	55.2	127.4	144.4	107.4	107.6	148.8
1972	24.9	36.7	48.4	16.3	63.9	67.4	56.9	127.2	149.9	113.3	114.0	151.9
1973	27.0	35.6	47.9	20.5	63.9	75.2	57.6	145.3	175.0	148.8	149.3	171.3
1974	31.2	37.2	48.0	30.4	67.5	58.8	75.6	153.9	201.3	170.9	174.8	220.0
1975	39.2	49.7	52.4	19.6	77.0	93.7	91.9	136.7	180.8	171.5	173.1	256.6
1976	45.1	53.0	56.7	33.7	85.2	109.2	111.6	163.1	201.1	197.1	198.2	302.7
1977	48.8	92.3	63.5	26.6	91.5	123.4	123.0	181.4	218.7	238.9	240.0	326.1
1978	52.0	88.5	68.8	35.8	91.3	128.5	126.5	202.3	247.5	269.8	277.8	344.5
1979	57.0	79.5	85.3	39.5	94.8	138.5	149.5	333.8	379.5	332.8	349.3	415.3
1980	63.8	77.3	95.3	45.0	104.8	147.5	170.5	392.0	441.8	357.5	371.0	464.0
1981	72.0	79.5	102.0	51.5	119.0	161.3	182.5	404.3	447.5	357.5	378.8	490.3
1982	79.5	86.5	115.8	45.3	150.8	169.3	204.8	409.0	441.8	359.5	373.8	540.0
1983	84.3	103.3	128.5	59.8	168.0	178.0	218.0	471.8	499.5	375.5	413.8	536.3
1984	92.0	140.3	134.0	52.8	171.0	184.8	225.8	498.8	528.5	401.3	440.0	550.8
1985	92.8	157.0	139.8	50.3	175.8	194.3	239.8	5 200	538.0	391.5	399.8	575.0
1986	98.0	149.0	150.3	61.0	185.8	201.0	242.8	541.0	552.8	401.0	437.0	593.0

(a) In almost all cases the table units are not necessarily those for which the original price data were obtained. In such cases, prices have been calculated for the table unit.
(b) Prior to 1978, bread delivered, 900 g.
(c) Prior to 1968 prices shown were for 'Corned beef (brisket), Mutton (leg), Mutton chops (loin)', respectively.

Banking, Tasmania
($'000)

Year	*Trading banks (including Commonwealth Trading Bank) (a)*			*Savings banks (b)*
	Deposits	*Advances*	*Debits to customers' accounts (c)*	*Depositors' balances at end of year*
1935–36	n.a.	n.a.	n.a.	13 636
1940–41	n.a.	n.a.	n.a.	17 882
1950–51	53 444	26 636	14 740	54 310
1960–61	76 454	48 010	32 600	94 776
1961–62	78 952	49 340	32 080	102 460
1962–63	83 178	53 176	35 068	112 856
1963–64	86 210	55 122	37 062	124 770
1964–65	94 604	54 176	41 340	135 736
1965–66	102 507	55 214	43 105	148 401
1966–67	112 091	60 460	47 103	167 106
1967–68	117 811	69 297	51 222	177 827
1968–69	124 473	72 394	55 896	190 043
1969–70	131 501	77 603	61 173	199 790
1970–71	133 587	86 976	64 177	217 663
1971–72	135 099	88 098	69 970	242 856
1972–73	159 141	99 192	85 291	288 986
1973–74	207 040	121 077	103 041	328 029
1974–75	229 851	137 189	119 447	382 326
1975–76	277 377	157 951	150 536	430 618
1976–77	348 613	207 635	179 932	477 134
1977–78	375 773	250 144	193 310	530 457
1978–79	415 180	300 811	220 074	587 755
1979–80	425 910	345 930	256 249	642 129
1980–81	445 257	394 596	287 683	698 917
1981–82	530 987	432 701	318 201	759 111
1982–83	608 867	441 385	337 704	938 178
1983–84	600 500	448 367	366 752	1 103 459
1984–85	643 165	498 526	458 073	1 213 535
1985–86	757 601	604 690	506 437	1 256 407
1986–87	783 778	718 654	638 463	1 319 450

(a) Average of weekly figures.
(b) Commonwealth, trustee and private. Private savings commenced operations in Tasmania as follows: ANZ, September 1961; National, May 1962; CBA, July 1962; CBC, March 1963; and Bank of Adelaide, November 1970.
(c) Excludes debits to Government accounts at Hobart City branches.

PUBLICATION OF TASMANIAN STATISTICS

HOW TO OBTAIN CURRENT PUBLICATIONS

General

The Tasmanian Office of the Australian Bureau of Statistics is located at 175 *Collins St, Hobart*. Requests for statistical publications can be made by calling at this address; by phoning the Information Officer on *Hobart* 205 800; or by writing to the *Deputy Commonwealth Statistician, GPO Box* 66A, *Hobart* 7001. Those requiring particular publications on a regular basis should ask to be placed on the publications mailing list.

Service to the public is not restricted to the distribution of publications. If no publication adequately covers the subject matter of the inquiry, then a special extraction of the data required may be undertaken if they are readily available from the basic records held in the office. The guide, *Catalogue of Publications* (1101.0), includes descriptions of all publications together with a detailed subject index and is available free of charge.

Historical

Before the appointment of the first Government Statistician in Tasmania in 1867, statistics had been published in the official 'Blue Books' compiled by the Colonial Secretary during the period 1822–1855, and in volumes entitled *Statistics of Tasmania* after self-government was granted.

By the *Commonwealth and State Statistical Agreement Act* 1924, the Tasmanian Parliament ratified an agreement for the establishment of an office in Tasmania of the Australian Bureau of Statistics, such office to meet the statistical needs of the State Government; provision was made for the Deputy Commonwealth Statistician, a Federal Government officer, to hold, at the discretion of the State Government, the title of (State) Government Statistician. The first officer appointed in this way was L.F. Giblin, D.S.O. M.C., who had previously been the State Government Statistician. (It was not until the late 1950s that similar arrangements were made in the other Australian States.)

Statistics from 1804

In the Archives Office of Tasmania, the following series are available:

(i) *Statistical Account of Van Diemen's Land or Tasmania*, 1804 *to* 1854 compiled by Hugh M. Hull (Office of the Colonial Secretary).

(ii) Official 'Blue Books' for the period 1822–1855.

(iii) *Statistics of Tasmania*—annual publications from 1856 to 1922–23.

(iv) *Statistics of the State of Tasmania*—annual publications commencing 1923–24 and continuing to 1967–68. (Copies of these volumes are held at the University Library, the State Library in Hobart, the Public Library in Launceston and the Tasmanian Office of the Australian Bureau of Statistics.) Although the bound volume entitled *Statistics of the State of Tasmania* has been discontinued as from the 1967–68 issue, the component parts are still published as separate bulletins.

Copies of publications listed under (i), (iii) and (iv) above, are available for inspection at the Tasmanian Office of the Bureau.

Current Publications of the Tasmanian office

The Tasmanian Office of the Australian Bureau of Statistics is engaged in a continuous publication program.

The publications can be dissected into annual bulletins and press releases. The press releases are issued with a view to making the statistical information available as soon as possible after compilation. Bulletins contain greater detail than press releases, but because of time taken to compile and print, are issued some time after the period to which they refer. The two principal publications issued by the Tasmanian Office of the Bureau are the *Tasmanian Year Book* and *Pocket Year Book of Tasmania.*

The following table lists all recent publications issued by the Tasmanian Office. A similar table is included on the back cover of each issue of the *Tasmanian Statistical Indicators* and all annual bulletins, showing the latest available issues and their dates of publication.

Publications of the Tasmanian Office of the Australian Bureau of Statistics (*a*)

Cat. No.	*Publication*
	General
1101.6	Index of Towns, Localities and Standard Area Codes *irr*
1301.6	Tasmanian Year Book ($24.50) *a*
1302.6	Pocket Year Book of Tasmania ($4.95) *a*
1303.6	Tasmanian Statistical Indicators ($5.00) *m*
1305.6	Tasmania at a Glance *a*
	Demography and Social
2201.6	Census 86: Characteristics of Persons in Hobart Surburbs *irr*
2202.6	Census 86: Characteristics of Persons in Launceston Suburbs *irr*
2203.6	Census 86: Characteristics of Persons in Burnie and Devonport Suburbs and Surrounding Areas *irr*
2401.6	Census 86: Characteristics of the Population and Dwellings in Local Government Areas *irr*
3203.6	Age Distribution of the Estimated Resident Population in Local Government Areas *irr*
3204.6	Population Statistics ($5.00) *a*
3302.6	Divorces *a*
3303.6	Births *a*
3304.6	Deaths *a*
3305.6	Marriages *a*
4101.6	Social Report ($3.00) *irr*
4102.6	Public Library Usage, Tasmania April 1987 ($5.00) *irr*
4220.6	National Schools Statistics Collection ($5.00) *a*
4203.6	Tertiary Education *a*
4503.6	Prison Statistics *a*
4505.6	Children's Court Statistics *a*
4506.6	Lower Court Statistics *a*
4507.6	Higher Court Statistics *a*
	Foreign Trade and Finance
5402.6	Foreign Trade *a*
5501.6	Local Government Finance ($1.80) *a*
	Labour, Wages and Prices
6103.6	Employment, Earnings and other Labour Related Statistics *a*
6201.6	Labour Force Statistics *a*

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Publications of the Tasmanian Office of the Australian Bureau of Statistics (*a*)—*continued*

Cat. No.	*Publication*
	Labour, Wages and Prices—continued
6301.6	Industrial Accident Statistics *a*
6402.6	Index of Retail Prices of Food in Tasmanian Cities and Towns ($2.00) *a*
	Agriculture
7111.6	Principal Agricultural Commodities, (Preliminary) ($3.00) *a*
7112.6	Agriculture, Tasmania ($1.80) *irr*
7113.6	Agriculture, Tasmania (at a glance brochure) *a*
7221.6	Livestock and Livestock Products ($5.00) *a*
7321.6	Crops and Pastures ($5.00) *a*
7322.6	Fruit ($5.00) *a*
7411.6	Agricultural Land Use and Selected Inputs ($5.00) *a*
7501.6	Value of Agricultural Commodities Produced ($5.00) *a*
	Manufacturing and Mining
8201.6	Census of Manufacturing Establishments, Summary of Operations by Industry Class *a*
8202.6	Census of Manufacturing Establishments, Details of Operations and Small Area Statistics ($1.80) *a*
8203.6	Sawmilling, Woodchipping, etc. Statistics ($2.00) *q*
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8635.6	Tourist Accommodation ($5.00) *q*
8637.6	Measures of Tasmanian Tourism ($7.50) *irr*
8638.6	Tasmanian Tourism Measures (at a glance) *irr*
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9406.6	Road Traffic Accidents Involving Casualties ($5.00) *a*

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TASMANIAN STATISTICS IN CENTRAL OFFICE PUBLICATIONS

Although publications of the Tasmanian Office of the Australian Bureau of Statistics make available statistics on many aspects of the State, there are some fields in which additional or more frequent information is available in publications of the Central Office.

How to Obtain Central Office Publications

Central Office priced publications may be *bought* direct from the *Australian Government Publications and Inquiry Centres* at 113 *London Circuit, Canberra* or 162 *Macquarie St, Hobart,* or from the Tasmanian Office of the Australian Bureau of Statistics. A standing order may also be placed with the Bureau on a *pre-paid* basis. In addition to publications for which a charge is made, there are other Central Office publications which may be obtained free of charge by 'phoning Canberra (062) 52 6627 or Hobart (002) 205 800 or by writing to Information Services, Australian Bureau of Statistics, PO Box 10, Belconnen, ACT 2616.

Subject Matter of Central Office Publications

The fields of statistical inquiry covered in Central Office publications are very wide (more than 270 different titles are issued annually) and the best way to obtain a guide to the material available is to write to: *The Australian Statistician, PO Box* 10, *Belconnen, ACT* 2616 and ask for the booklet *Catalogue of Publications* (1101.0). Copies of this guide are also available at the Tasmanian Office of the Bureau. This free, comprehensive guide lists the publications of the Central Office and of the State offices; in addition, it contains a subject index to information covered by Central Office publications. Readers with interest in a particular field are invited to call at, or write to, the Tasmanian Office which is in a position to give advice on what publications are available.

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